

Manufacturers Record

Reg. U. S. Pat. Office

Industry Construction



BALTIMORE, MD.

APRIL 7, 1932

Southern Construction Activity



Building contracts awarded during March in the Southern States again have made a proportionately better showing than the rest of the country which, according to last reports, continued to be about 60 per cent below the figures for the corresponding months of last year.

With the \$27,000,000 of new building and construction work awarded in March, the aggregate for the South during the first quarter of 1932 was more than \$63,000,000. This total does not include any project costing less than \$10,000 and if the large number of such small jobs was included in the compilation from the weekly construction news items published in the Manufacturers Record and Daily Construction Bulletin, it is estimated that more than \$80,000,000 of building construction was undertaken in the Southern States during the three months ended March 31.

While this figure is below the high record set in 1930 when an enormous amount of pipe line construction was let to contract, it offers encouragement especially because building operations have steadily increased in the last several weeks with March awards practically doubling those of February. Furthermore, total building and construction contracts during the first quarter of 1932 are one-third higher than the total of \$47,820,000 reported for the corresponding period of the depression of 1921. Projected work during the first three months of this year aggregated more than \$161,000,000, a gain being recorded each successive month and indicating a substantial carry-over in the coming weeks.

Considering the lower prices prevailing over last year and the fact that there has not been any exceptionally large building and engineering projects listed during this period, the total is decidedly not discouraging. The South is maintaining a higher relative level of construction activity than the rest of the country.

HAS A TRAMRAIL MAN SHOWN YOU



How Tramrail equipment has proven, by years of operation, its ability to stand up under the most severe and exacting service

Has he shown you how, by the proper layout and use of Cleveland Tramrail, material can be piled to the limit of the carrying capacity of the floor. Every point of the warehouse is readily accessible - stock can be removed from the

warehouse and deposited at the production tools - Without Rehandling.

CLEVELAND ELECTRIC TRAMRAIL

MADE BY
THE CLEVELAND CRANE & ENGINEERING CO.
WICKLIFFE, OHIO.

There is a Thoroughly Trained Tramrail Engineer within a Short Distance from Your Door

There may be Real Advantages in making use of his services which are offered without obligation

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Albany, N. Y.	(See Trenton)	Dayton, Ohio	Evansville, Ind.	Los Angeles, Calif.	New Orleans, La.	Rochester, N. Y.	Syracuse, N. Y.
Atlanta, Ga.	Charleston, W. Va.	Detroit, Mich.	Fort Wayne, Ind.	Memphis, Tenn.	New York, N. Y.	Rockford, Ill.	Toledo, Ohio
Baltimore, Md.	Charlotte, N. C.	Duluth, Minn.	(See Toledo)	Milwaukee, Wis.	Nashua, N. H.	San Francisco, Calif.	Trenton, N. J.
Birmingham, Ala.	Chattanooga, Tenn.	Easton, Pa.	Hagerstown, Md.	Minneapolis, Minn.	Peoria, Ill.	Seattle, Wash.	Tulsa, Okla.
Boston, Mass.	Chicago, Ill.	East St. Louis, Ill.	Indianapolis, Ind.	Mobile, Ala.	Philadelphia, Pa.	Sheboygan, Wis.	Worcester, Mass.
Brooklyn, N. Y.	Cincinnati, Ohio	Elizabeth, N. J.	Johnstown, Pa.	Muskogee, Mich.	Pittsburgh, Pa.	South Bend, Ind.	Youngstown, Ohio
Buffalo, N. Y.	Cleveland, Ohio		Joliet, Ill. (See Rockford)	Nashville, Tenn.	Portland, Oreg.	Springfield, Mass.	
	Columbus, Ohio		Kansas City, Mo.	Newark, N. J.	Providence, R. I.	(See New Haven)	

CLEVELAND

HAND OR ELECTRIC TRAMRAIL

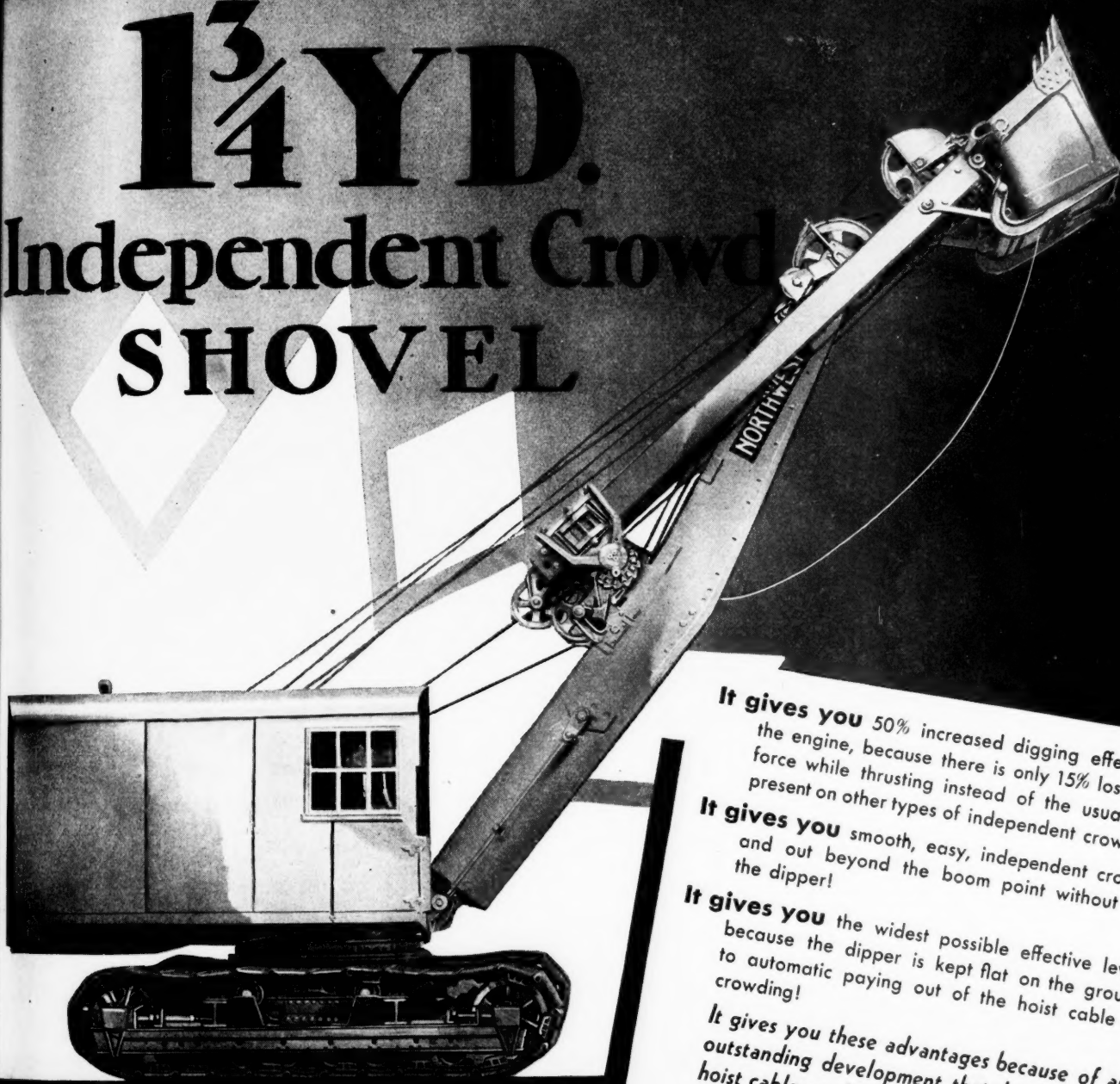
NORTHWEST

announces a new

1 $\frac{3}{4}$ YD.

Independent Crowd SHOVEL

A
new
shovel



*with the Patented
Cable Crowd no other
manufacturer can offer!*

It gives you 50% increased digging effectiveness of the engine, because there is only 15% loss of digging force while thrusting instead of the usual 45% loss present on other types of independent crowd shovels!

It gives you smooth, easy, independent crowding up and out beyond the boom point without lowering the dipper!

It gives you the widest possible effective level floor because the dipper is kept flat on the ground due to automatic paying out of the hoist cable during crowding!

It gives you these advantages because of an outstanding development that dead ends the hoist cable on the dipper sticks instead of at any other point. Northwest effectively utilizes a force that is wasted on other shovels.

**THE GREATEST VALUE PER DOLLAR
OF ANY SHOVEL ON THE MARKET!**

NORTHWEST ENGINEERING CO.
1733 Steger Bldg., 28 E. Jackson Blvd., Chicago, Ill., U. S. A.

Atlanta, Ga.: 351 Whitehall St.
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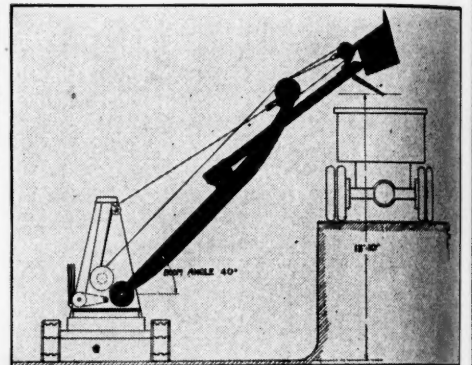
MR1-7Gray



A comparison of five competitive shovels with booms set at 40° shows a dumping height of

13' 10" in the AUSTIN BADGER
12' 8" in SHOVEL A
11' 11" in SHOVEL B
12' 0" in SHOVEL C
11' 6" in SHOVEL D

The IMPROVED design of the Austin Badger makes it the Biggest little shovel on the market!



MORE DUMPING HEIGHT

From 1' 2" to 2' 4" greater dumping height is provided by the Austin Badger, making it the ideal shovel for basement excavation and other high lift jobs.

Greater dipper capacity (1 cu. ft. or more), roller bearings on all moving parts forward of the power plant (thirty-two in number), greater portability and complete convertibility are other features of the Austin Badger that should influence your selection of this biggest of all little shovels.

In the Austin Badger you get a plus $\frac{3}{8}$ yard (11 cu. ft.) shovel, amply powered, fully convertible for crane, dragline or back filler, an all-purpose utility tool for speedy economical operation.

Let us send you prices and operating data, and a copy of Bulletin No. 1236.



A COMPARISON OF FIVE COMPETITIVE SHOVELS FINDS IN THE AUSTIN BADGER . . . 32 roller bearings
SHOVEL A 10 roller bearings
SHOVEL B 7 roller bearings
SHOVEL C 7 roller bearings
SHOVEL D 6 roller bearings
The IMPROVED design of the Austin Badger makes it the Biggest little shovel on the market!

AUSTIN-

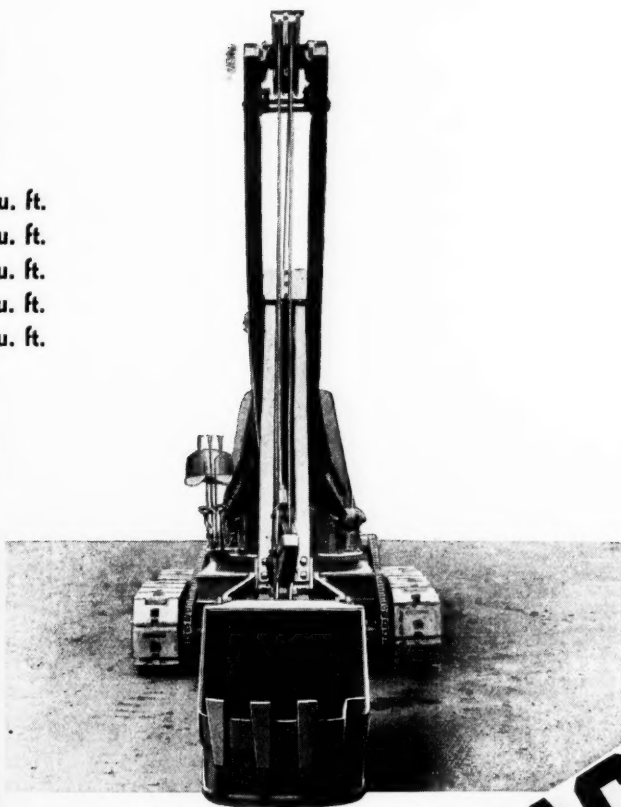
April 7, 1932

5

A comparison of five competitive shovels shows a dipper capacity on the

AUSTIN BADGER of 11 cu. ft.
SHOVEL A of 10 cu. ft.
SHOVEL B of 10 cu. ft.
SHOVEL C of 10 $\frac{3}{8}$ cu. ft.
SHOVEL D of 10 $\frac{3}{8}$ cu. ft.

The IMPROVED design of the Austin Badger makes it the Biggest little shovel on the market!



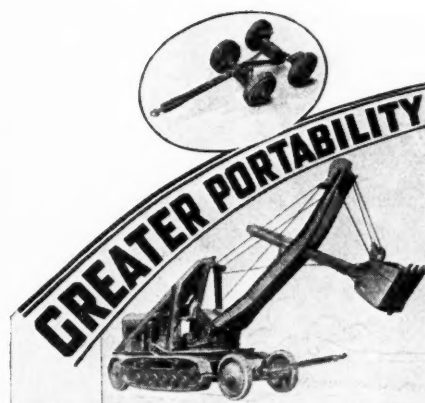
GREATER DIPPER CAPACITY

Measure the dipper area! Note that only the Austin Badger offers a plus $\frac{3}{8}$ yard (11 cu. ft.) dipper while most shovels are 10 cu. ft. or minus $\frac{3}{8}$ yard. This greater dipper capacity (a cu. ft. or more) means many, many more yards per day.

Other Austin Badger features too deserve your consideration—thirty-two roller bearings provide smoother, faster operation—more dumping height (1' 2" to 2' 4") means more flexibility of application—greater portability provides faster transportation from job to job—and low cost of operation means fuel and maintenance savings. The Austin Badger is backed by seventy-four years of making and selling earth moving and road maintenance tools.

The Austin-Western Road Machinery Co., 400 North Michigan Avenue, Chicago, Illinois.

Ⓢ S-324



A COMPARISON OF FIVE COMPETITIVE SHOVELS FINDS THE QUESTION OF PORTABILITY ANSWERED AS FOLLOWS:

AUSTIN BADGER . . . offers a low cost pair of wheel mounts.
SHOVEL A . . . offers a high priced pair of trucks.
SHOVEL B . . . offers an expensive trailer.
SHOVEL C . . . offers no transporting equipment.
SHOVEL D . . . offers an expensive trailer.

The IMPROVED design of the Austin Badger makes it the Biggest little shovel on the market!

WESTERN

More Water for the Road Builder..

Smooth 6 Cyl. Power, Helical Gear Drive, Timken Bearings and 100% Automatic Lubrication!

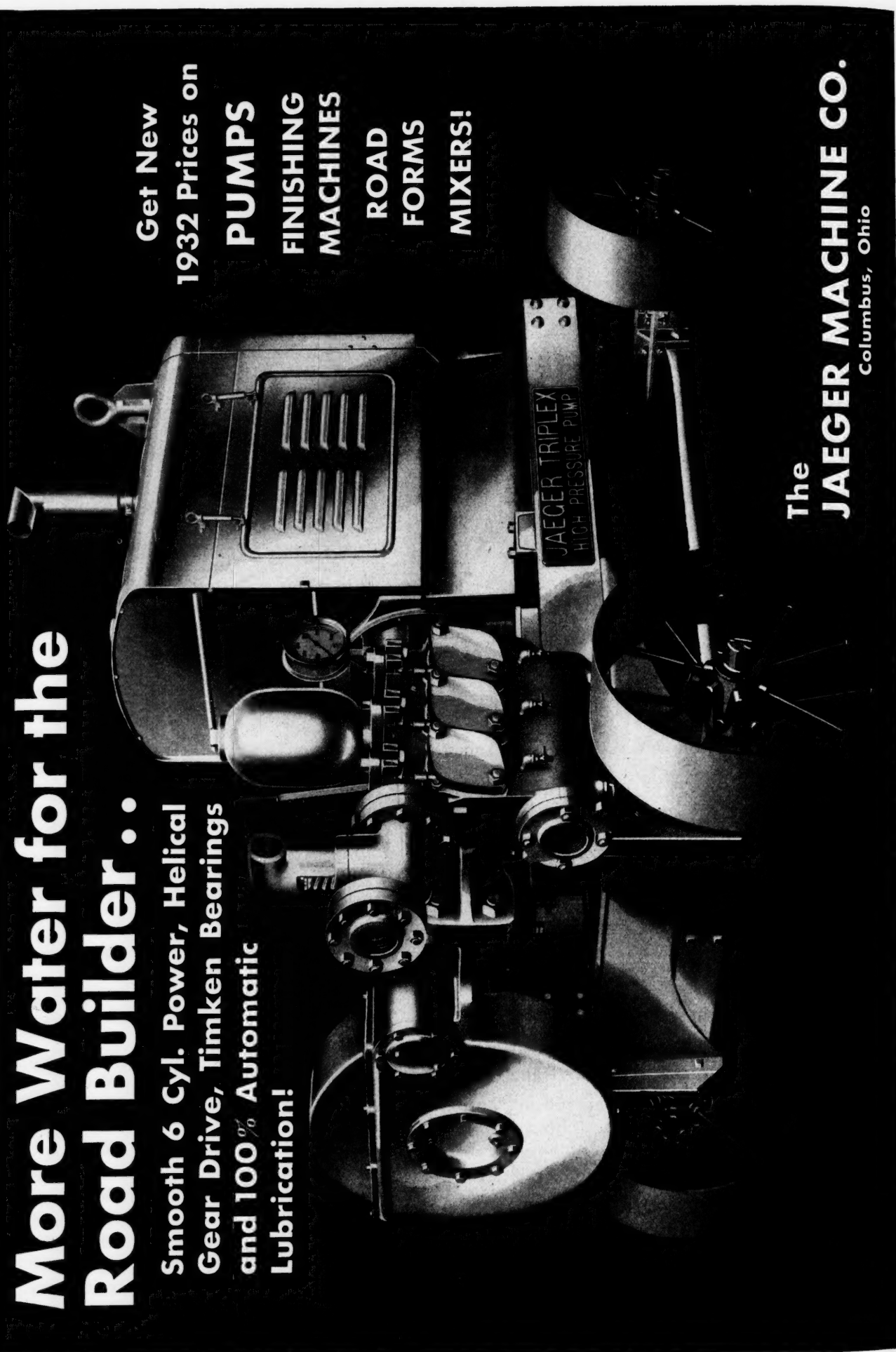
Get New
1932 Prices on

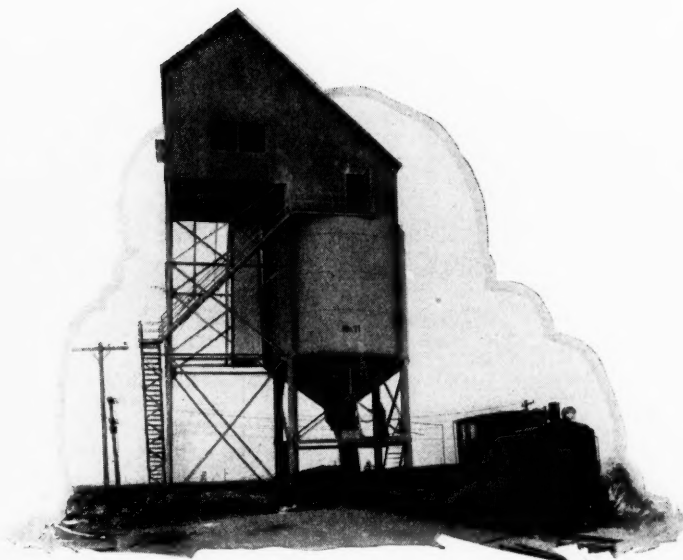
PUMPS

**FINISHING
MACHINES**

**ROAD
FORMS
MIXERS!**

The
JAEGER MACHINE CO.
Columbus, Ohio





A MILLION DOLLAR OPERATION

. . . entirely dependent on uninterrupted
and efficient hauling
uses

WHITCOMB

The extremely low cost of haulage via Whitcomb Locomotives is being convincingly demonstrated in America's most modern zinc and lead mine, the Bird Dog Mine, Cardin, Oklahoma, owned and operated by the Commerce Mining and Royalty Company.

The Bird Dog extends over four leases and ore is brought from the various shafts to a central point for milling. Although the entire operation depends on efficient uninterrupted hauling, ONE 14-ton, full-chain-drive Whitcomb Locomotive does it.

More than 100 tons of ore are handled per hour by the mill, and more than 266,000 tons have been hauled since the Whitcomb was put in service.

Costs of hauling have never exceeded 1.7c per ton.

There has been no expense for locomotive repairs and no interruptions of service.

Competent dependable hauling at surprising savings is made possible for any project through the use of Whitcomb Locomotives. Whatever your requirements, there is a size and type of Whitcomb to make the grade and haul the load. Complete details on request.

THE WHITCOMB LOCOMOTIVE COMPANY
ROCHELLE . . . ILLINOIS

WHITCOMB LOCOMOTIVES

A



The Williams "Champion" Bucket, shown above, has the exclusive Williams arrangement of power-arm sheaves, giving a *straight line* closing pull and conserving power for digging. Straight cable lead reduces cable cost.

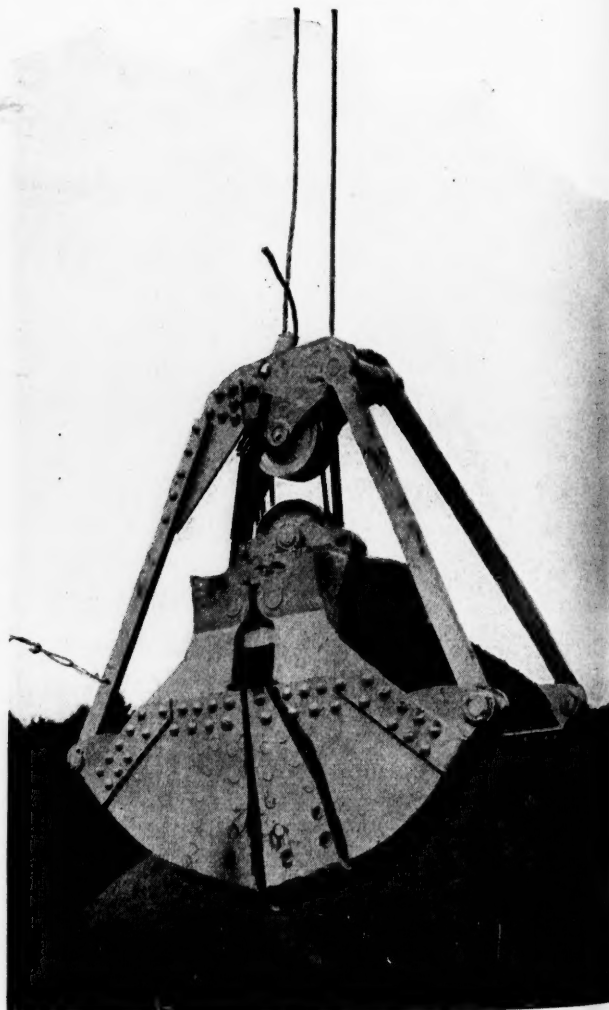
The new Williams Type "MF" Bucket, on the right, is a multiple-rope bucket that cuts upkeep cost. Six-part reeving gives straightest possible lead for closing cable—and unusually long roller guards in the head reduce cable wear.

Write for bulletins

MESSAGE to *Excavating Engineers*

When we say Williams Buckets "OUT-DIG" we are not only making a claim based on years of competitive performance but quoting excerpts from scores of letters received from enthusiastic users. In the interest of faster and lower cost excavating *you* should investigate—

WILLIAMS • BUCKETS • S



WE BUILD BUCKETS FROM THE VERY SMALLEST TO THE VERY LARGEST AND FOR EVERY PURPOSE

THE WELLMAN ENGINEERING CO.

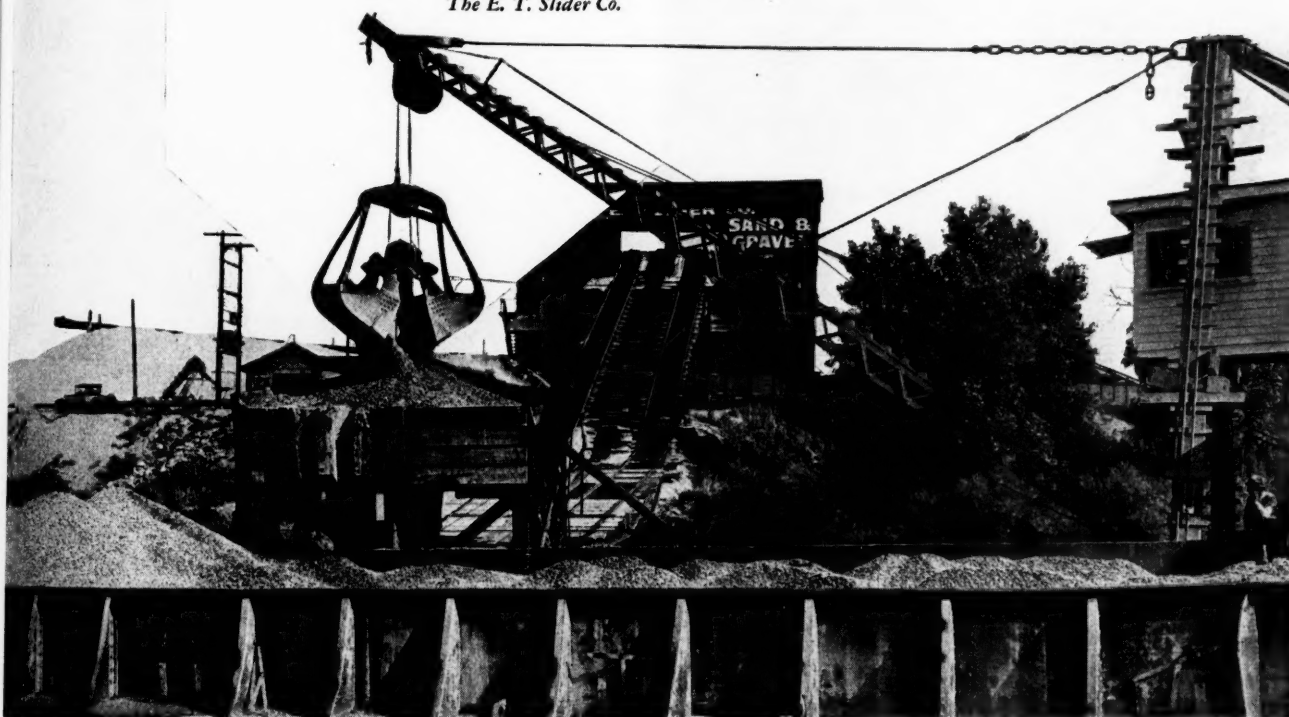
7003 Central Avenue, Cleveland, Ohio

Birmingham—Chicago—New York—Detroit—Pittsburgh—Mexico

TONNAGE INCREASED ... ONE THIRD

**".. THIS OWEN BUCKET UNLOADS
FOUR 600-TON BARGES IN TEN
HOURS, WHERE ONLY THREE WERE
UNLOADED BEFORE."**

*Mr. Chester Slider
The E. T. Slider Co.*



Stepping up production and cutting down expenses are the effective results The E. T. Slider Company experienced with their Owen Clamshell Buckets. This Owen unloads four barges in a ten-hour day without any trouble. Operating costs have been materially reduced through the cooperation of The Owen Bucket Company with the E. T. Slider Company in developing

buckets particularly adapted for each of four different installations. • Where time is the essential factor, and where production costs must be pared, count on an Owen to bring results every time. Take advantage of Owen knowledge and experience. A line from you will start work on your particular problem. THE OWEN BUCKET CO., CLEVELAND, OHIO



Owen Buckets

A M O U T H F U L A T E V E R Y B I T E

Nature looks natural through Pennvernion windows



HERE is one of the most important reasons why the popularity of Pennvernion Window Glass has increased so rapidly among architects, builders and home-owners: Through Pennvernion Glass, the scenes beyond it can be viewed clearly, with full definition of line, without distortion, and in true and natural colors. Briefly, Pennvernion Window Glass allows Nature to look like itself.

The explanation of Pennvernion's superiority in this respect is simple. It results from the special process of manufacture by which this better window glass is made. Pennvernion's exclusive method of manufacture gives it a remarkable flatness, clearness and freedom from distortion. And because Pennvernion is itself unusually free from color, it is able to transmit faithfully the true colors of Nature, neither changing nor dimming their brightness.

Sharper, clearer vision—but that's just one of Pennvernion's outstanding features. In addition, this glass has an extraordinary intrinsic beauty of its own—a brightness and brilliance of surface on both sides of the sheet that means much better reflection.

And these bright surfaces are so smooth and dense that they are highly impervious to wear and abrasion—giving Pennvernion longer life.

Investigate Pennvernion Window Glass. See for yourself what makes it such a fast-growing favorite. It is available at the warehouses of the Pittsburgh Plate Glass Company in leading cities and through progressive glass jobbers. It can be had in single or double strength and in standard thicknesses up to $\frac{1}{32}$ ". Write for samples and our booklet on Pennvernion. Address Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

PennVERNION
flat drawn
WINDOW GLASS



Record
al
ws

Tarmac *has* Infaration*

CATALOGUE
FILED IN
VEET'S

WHAT IS
*Infaration?
.. See next page

WHAT IS *Infaration?

*Infaration is that quality of a bituminous material which causes effective penetration combined with maximum bonding power.



Gravel road in Payson Park, Portland, Maine. Treated with double application of Tarmac P and stone chips.

Infaration is

Infaration is

Infaration is

Greater Penetration

combined with

Greater Bonding Power

Permanent Skid Resistance

Greater Road Stability

an integral part of the road and not merely a mat. *On retreatments* of existing pavements (even dense, hard surfaces like cement concrete or bituminous concrete) it penetrates so that a perfect bond is established between the old road and the new surface. *On aggregates not ideally clean* it penetrates the thin film of dust often coating the aggregate (which is particularly important in mixed-in-place, retread and the newly-developed drag surface treatments).

But to penetrate is not enough. Infaration gives Tarmac the ability to combine maximum binding power with its penetration. *In surface treatments*, this binding power gives Tarmac the ability to hold the maximum amount of covering material to the road surface with a minimum use of binder. *In mixed-in-place, and road mix construction*, this binding power makes a dense, well-bound road surface with a minimum amount of binder per square yard for a given depth of wearing surface.

The combined penetration and binding power give Tarmac surfaces greater stability and prevent waving or shoving.

Infaration increases Tarmac skid-resistance because an infarating material penetrates and binds instead of bleeding up to the surface, and because it penetrates each particle of the covering material and leaves the road granular instead of slippery. (Tarmac is less slippery in itself, as it contains no slippery, oily constituents). Insist on Tarmac for better bituminous road work.

KOPPERS BUILDING

KOPPERS PRODUCTS COMPANY

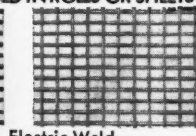
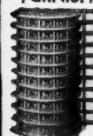
PITTSBURGH, PA.



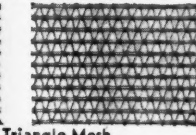
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NEW YORK CITY**

Architect—Cass Gilbert
General Contractors and Fireproofers
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Electric Weld



Triangle Mesh

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THE STEEL BACKBONE
OF CONCRETE

Greater Permanence and Safety

American Steel & Wire Company Wire Fabric Reinforcement is finding its way into more and more important structural developments every day. For example, in the erection of the New York Life Insurance Building this Wire Fabric was used throughout to reinforce the concrete floors, guaranteeing longer service and greater safety. Leading Architects and Engineers now specify American Steel & Wire Company Wire Fabric when preparing their plans. Hundreds of highly satisfactory installations prove the wisdom of their specifications.

1831



1932

AMERICAN STEEL & WIRE COMPANY

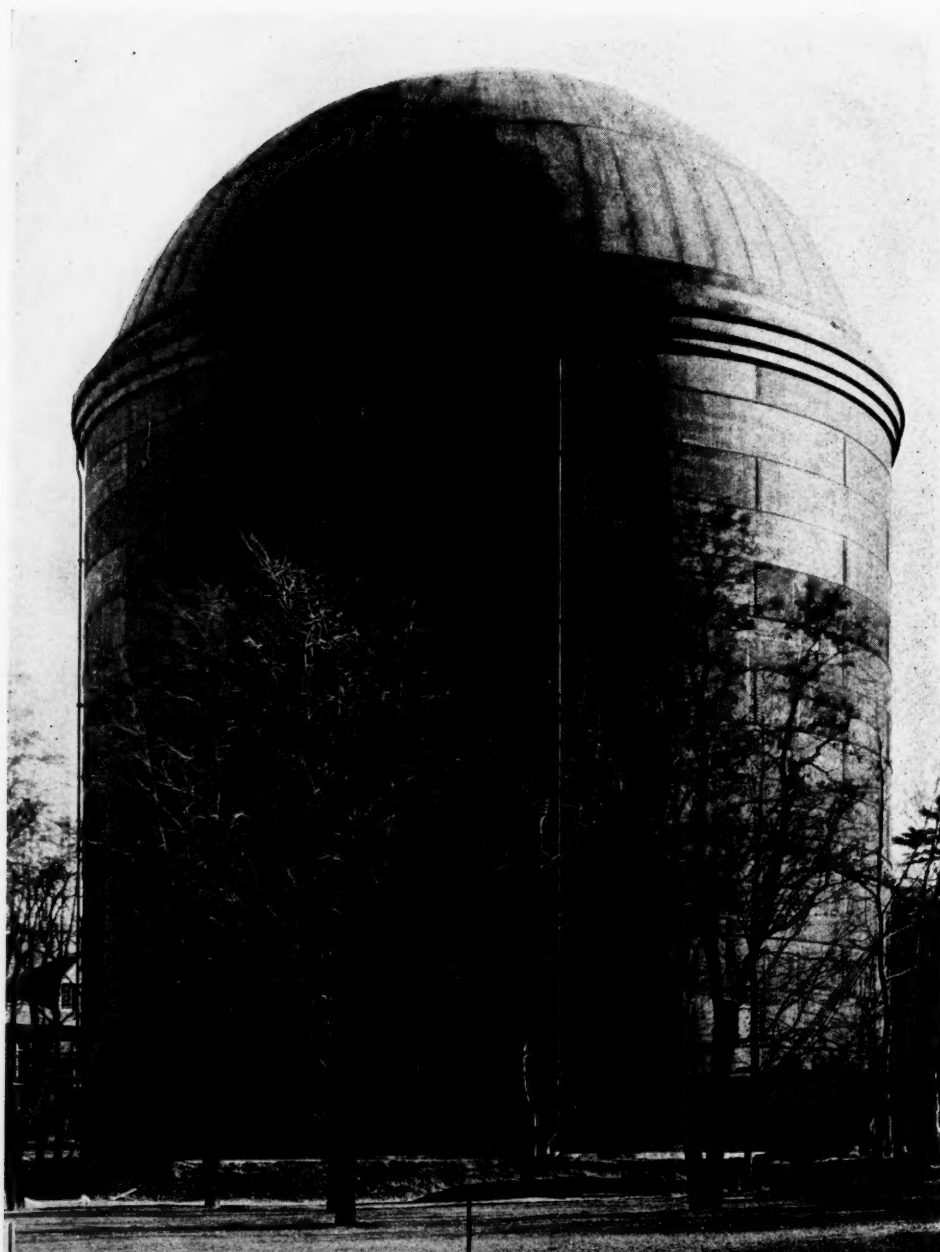
208 South LaSalle Street, Chicago

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Pacific Coast Distributors. Columbia Steel Company, Russ Building, San Francisco

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Standpipe with capacity of 5,000,000 gal. erected at Lancaster, Pa., by McClintic-Marshall Corporation

STEEL PLATE CONSTRUCTION

McCLINTIC-MARSHALL CORPORATION

Subsidiary of Bethlehem Steel Corporation
General Offices: Bethlehem, Pa.



District Offices: New York, Boston, Philadelphia, Baltimore, Pittsburgh, Buffalo, Cleveland, Cincinnati, Detroit, Chicago, St. Louis, San Francisco, Los Angeles

Export Distributor: Bethlehem Steel Export Corporation, 25 Broadway, New York City

By reason of long experience in fabricating and erecting all types of steel-plate work, a force of skilled workmen, and unmatched facilities, McClintic-Marshall is exceptionally well qualified to meet the requirements of users of steel-plate construction.

McClintic-Marshall Steel Standpipes, Elevated Water Tanks, Penstocks, Stacks, Oil Tanks, Gas Holders, High-Pressure Cylinders, Barges, and other products made of steel plate, are fabricated in the largest plant in the world devoted entirely to steel plate construction, at Leetsdale, Pa., near Pittsburgh.

McClintic-Marshall's Hay Works at Newark, N. J., is advantageously located to fill promptly orders for steel-plate work in the Metropolitan area.

McClintic-Marshall

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STEEL SHEETS for EVERY PURPOSE

High Grade Sheets and Terne Plates adapted to all modern Building Construction Uses—
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This Company manufactures a complete line of Black Sheets, APOLLO Best Bloom Galvanized Sheets, Galvannealed Sheets, Heavy-Coated Galvanized Sheets, and Sheets for Special Purposes; also KEYSTONE Rust Resisting Copper Steel Sheets.

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Large Stock of Standard and Bethlehem Shapes
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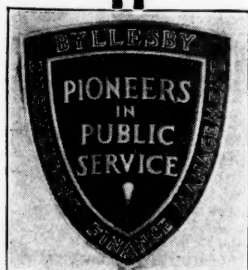
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TITUSVILLE
IRON WORKS CO.
TITUSVILLE, PENNA.

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HEATING BOILERS

FOR ALL
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An experience of fifty years.

A factory equipped and operated for our
own work exclusively.

A force of experienced erectors in the field.

A determination to keep our product and
service up to the highest possible standard.

Correspondence Invited.

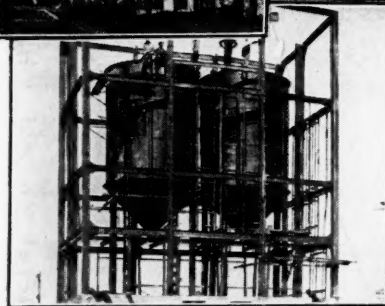
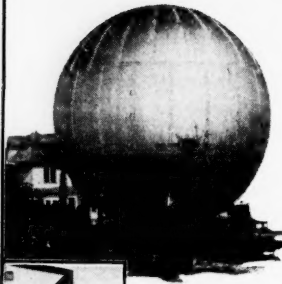
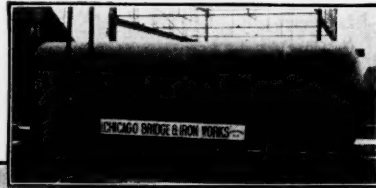
CUTLER MAIL CHUTE COMPANY

GENERAL OFFICES AND FACTORY
ROCHESTER, NEW YORK

STEEL TANKS and Steel Plate Construction

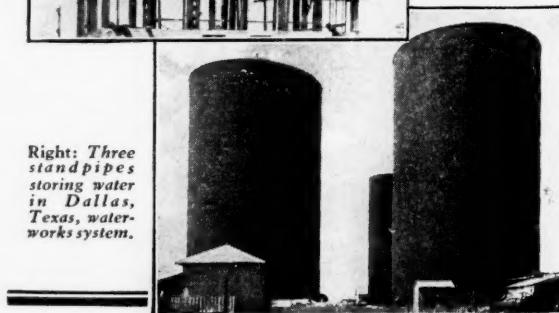
Right: Riveted-up Tank.

Below: Elevated tank at Fayetteville, N. C.



Above: Hortonsphere storing gas at West Palm Beach, Fla.

Left: Lime storage bins at Miami, Fla., water softening plant.



Right: Three standpipes storing water in Dallas, Texas, water-works system.

WE are equipped to build steel tanks and steel plate work of all kinds. Elevated tanks, storage tanks, standpipes, Hortonspheres and Hortonspheroids are built in standard capacities. Designs on special structures submitted when desired. Cylindrical tanks and other work which can be shipped complete are built-up in our Birmingham plant. Larger structures are erected with our own experienced crews. Information and estimates furnished without obligation to you.

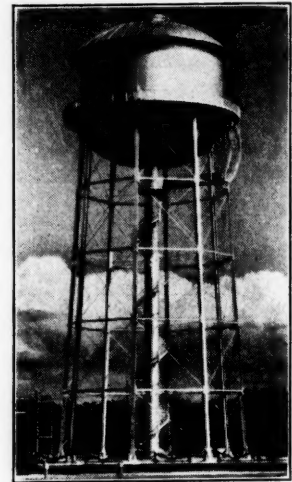
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Plants at BIRMINGHAM, CHICAGO and GREENVILLE, PA.

B-290

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500,000 Gallon Tank

erected for City of St. Petersburg, Fla. Cole tanks both in design and workmanship offer very distinctive advantages. They embody the most revised requirements of all insurance authorities.

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R. D. COLE MANUFACTURING CO.

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New York Office,
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A Super Tower

Generosity typifies the design and construction of Caldwell Structural Towers. To provide the strength and sturdiness that have marked the unusual success of this type of tower for heavy loads and great heights we have spared no precaution in material or workmanship.


This tower is built of heavy structural shapes thoroughly laced and riveted together by the most modern scientific engineering methods. It is built for steel or wood tanks in capacities from 15,000 gallons upward.

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W. E. Caldwell Co., Incorporated
1900 Brook Street,
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AND
TOWERS

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CYPRESS TANKS

Every Davis Tank embodies the accumulated technical skill of forty-two years of tank-building.

Just as cypress is without superior for investment economy, so are Davis Tanks unsurpassed in material, method of construction and reinforcing for service. A Davis water tank on a Davis steel tower, are plant purchases which have almost no limit of life and usefulness. Ask for new catalog of sizes and capacities.

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AMERICAN BRIDGE COMPANY

Subsidiary of United States Steel Corporation

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Water Softeners and Filters—Of Every Type and Size
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Any Type—Any Purpose—Any Capacity
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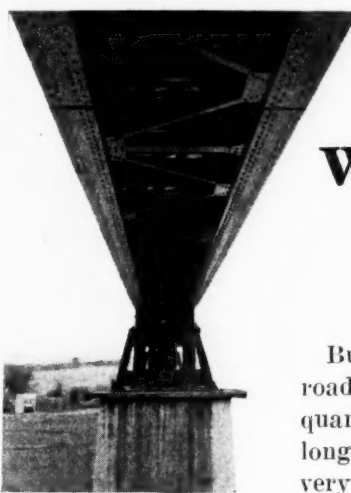
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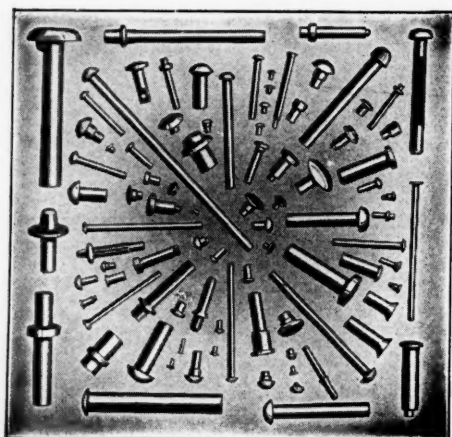
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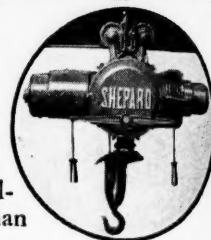
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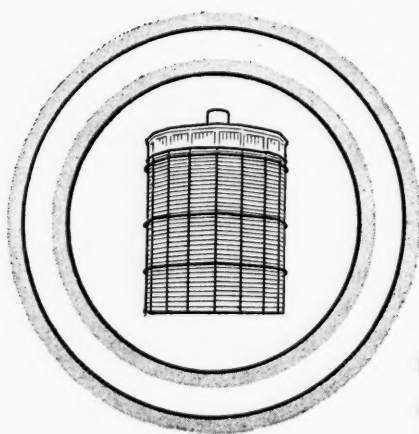
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Vol. CI No. 14 }
Weekly }

BALTIMORE, APRIL 7, 1932

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Reduce Government Expenses

AMID a confusion of ideas and many suggestions of plans for betterment, some of them possibly workable but many unworkable, there is manifested a definite insistent demand from all parts of the country for a salutary reduction in the expenses of Government. The tax burden has mounted too high for shrunken resources of individuals and corporations to stand the load. Unnecessary, extravagant expenses of government must be reduced. This applies to local units of government everywhere, as well as to the national administration.

The country recognizes, in spite of all this, that a new tax is temporarily necessary; that a further production of revenue must be assured if we are to keep the American dollar at its high standard throughout the world, and if business is to be saved from utter confusion and distress. But the country also recognizes that all of the piled-up waste and unnecessary employment is wrong. It is wrong from every standpoint, and only a tolerant people, thinking perhaps if they considered it at all that abundant prosperity would foot the bills, could have become so indifferent to it. It takes a catastrophe sometimes to make us aware of the need for prompt correctives to remedy wrong conditions that have grown during the years. So there appears this mounting demand for relief from an intolerable burden, actuated by the necessity of the moment.

Granting that Congress is sincere in its efforts to balance the budget, and that sensible members must recognize, to do this, it is necessary to reduce expenses, it is impossible to understand how, in this atmosphere, where the country's well-being should be the main consideration, there can be at the same time serious consideration given to a bonus bill that will cost the country \$2,000,000,000 additional. And it is predicted by competent judges that the bill will pass. We debate reduction of expenses on one hand and pile them up on the other.

It is a time for leadership. It is a time for men of firm purpose and without mincing words to show

that this state of affairs cannot go on. If we are to have, ever, a straightened out business situation and a chance for normal progress of activity in this country, one of the first steps is to reduce salaries not only of Federal employes, but of the employes of local governments. We showed recently in these columns that \$700,000,000 can be saved annually by cutting the salaries of all public employes who get more than \$1000 a year, and in all conscience, why should they not be cut? Private business has had to do it drastically and in some cases repeatedly.

There are many overlapping Federal bureaus and it is generally believed that various branches of the government are overmanned. This is doubtless true in local units too.

Productive appropriations that will add to employment and will promote the country's welfare are necessary and advisable, but all others should be scrutinized closely and pruned deeply.

Thoughtful students of affairs believe that a necessary measure of economy is to abolish the Federal Farm Board. Part of the \$500,000,000 already allocated can be saved by the liquidation of the stabilization organizations. John R. Mitchell, representative from Tennessee, is quoted in the Congressional Record:

"A deficit can be cured by reducing expenses as effectively as by increasing taxes.

"We do not need 600,000 officeholders to run this Government. Let us do away with unnecessary bureaus, unnecessary boards and commissions, and have a general reduction of expenses. Let us do away with big appropriations which the conditions in the country so justly demand be left off. Let us stand by and for the people and the taxpayers and against the boards and the unnecessary officeholders.

"Let us fight extravagance in government."

Recognizing that it is necessary to save a disastrous situation by adopting a new tax measure which should be arranged on as broad a base as possible, it is equally essential to prove to the country that government will be and must be administered economically.

If such a course is entered upon at once, it will give the people confidence in the integrity and right purpose of those in charge of our public affairs. Under such conditions there will be no question of the prompt acceptance of a tax bill and business will move forward.

It is time for the press of America in every county and every town where waste and extravagance have mounted, as it has so flagrantly over the whole land, to call attention to the reductions that must be effected if we are to extricate ourselves from a situation that is fast becoming intolerable.

Growth of Rural Electrification

RURAL electrification showed a gain of 7.5 per cent in 1931 compared with 1930. Perhaps it will be surprising to some to learn that outside of the great industrial and financial centers there are people who have sufficient confidence in the soundness of this country to spend money for improvements. Many of these rural connections mean additional employment of modern power equipment in farming operations. Research and promotional work in the use of electricity on the farm are opening wider opportunities for the farmer who is diversifying his operations.

According to a survey by the Statistical Research Department of the National Electric Light Association, during 1931 nearly 49,000 farms were added to the number already using electric service from public utility lines, bringing the total to approximately 700,000.

A previous survey by the association showed that at the end of 1923 there were 177,500 farms obtaining service. During the eight years since, the number of electrified farms has increased three times. The accompanying tabulation gives an approximate estimate covering the growth of this service in this period, revised to conform with the 1930 Census of Agriculture. It will be noted that in each successive year the number of farms using electricity substantially increased.

Electrified Farms in United States

Year	Number
1923	177,500
1924	205,000
1925	246,000
1926	309,000
1927	392,000
1928	506,000
1929	576,000
1930	650,000
1931	698,786

In the Southern States, 116,761 farms were served by public utility electric lines last year. This is a gain of 9580 farms, or 9 per cent, which is about 2 per cent higher than the percentage increase for the United States as a whole. The spreading of power lines throughout the South in recent years and the work of power companies in developing rural electric service is beginning to show results. Not all farms

of course are so located that they can take advantage of this service, but the fact that, so far, only 3.3 per cent of the 3,470,000 farms in the South have installed electricity shows the tremendous potential market here for electric service and electrical equipment. Only 11.1 per cent of all the farms of the country are now served with electricity. The largest proportion of farms using electricity is on the Pacific Coast, 53.2 per cent, and in New England 41.9 per cent of the farms have this service.

Southern Farms Using Electricity

States	Number Served 1930	Number Served 1931	Increase	Per Cent	Total All Farms Served	Per Cent
Alabama	12,001	12,326	325	2.7	257,395	4.8
Arkansas	3,202	3,253	51	1.6	242,334	1.3
District of Columbia ..	66	70	4	6.1	104	67.0
Florida	4,385	5,214	829	18.9	58,966	8.8
Georgia	4,372	5,309	937	21.4	255,598	2.1
Kentucky	6,815	7,716	901	13.2	246,499	3.1
Louisiana	2,218	2,447	229	10.3	161,445	1.5
Maryland	6,614	6,961	347	5.2	43,203	16.1
Mississippi	3,548	3,475	*73	*2.1	312,663	1.1
Missouri	14,418	16,416	1,998	13.9	255,940	6.4
North Carolina	9,450	10,083	633	6.7	279,708	3.6
Oklahoma	4,517	4,927	410	9.1	203,866	2.4
South Carolina	3,493	3,746	253	7.3	157,931	2.4
Tennessee	7,585	7,996	411	5.4	245,657	3.3
Texas	11,501	11,543	42	0.4	495,489	2.3
Virginia	10,105	11,972	1,867	18.5	170,610	7.1
West Virginia	2,891	3,307	416	14.4	82,641	4.0
Total South	107,181	116,761	9,580	9.0	3,470,049	3.3

*Decrease.

Elsewhere in this issue are outlined some developments in rural electrification, especially the development of various types of farm machinery and equipment in broadening farm electric service. Included in this list are experimental electric-power-driven tractors, electric hot-beds for forcing plant growth, electric hay-driers, and investigations of the productive use of light in agriculture, all of which are being sponsored by the National Rural Electric Project.

Florida Farm Development

RECENT articles published in the MANUFACTURERS RECORD show a decided "Back-to-the-Farm" movement. Southern farm population since the depression has made a gain, reversing the cityward trend in evidence for several years.

Records of the Model Land Company, with headquarters at St. Augustine, bear out these general statements in so far as Florida is concerned. According to vice-president J. W. Hoffman, the company's land sales for 1931 were practically 50 per cent greater than in the previous year. Sales so far in 1932, while not large in volume, are, however, ahead of last year for the same period. Mr. Hoffman points out that the best evidence of the "Back-to-the-Farm" movement, is the increasing number of inquiries being received from prospective purchasers of land, principally from out-of-state people who are seemingly anxious not only to become residents of Florida, but likewise to engage in agricultural pursuits. He asserts that, "the time was never more opportune than now for the development of the agricultural industry in Florida. Right now there are exceptional oppor-

tunities for the raising of beef cattle, dairying, truck growing and general farming. Land is cheap and with 365 growing days, plenty of sunshine and moisture, any farmer with energy can make a success of farming in Florida."

"News Items From the East Coast of Florida," published by the Model Land Company is being distributed by the company to renew and stimulate interest in Florida, citing actual work now being done through the territory in extending and improving farming operations. The third edition of this pamphlet is now available. Other pamphlets distributed by the company feature the growing and use of some of the principal early spring trucking crops.

Florida, before the real estate boom, was making sound progress in agricultural development, and the present interest manifested by those seeking farming opportunities indicates a most wholesome trend and should prove of lasting benefit to the state.

Army of American Investors

HEAVY increase in the number of stockholders in a dozen railroad, industrial, public utilities and other corporations in two years is subject for more than one interpretation, fundamentally encouraging in nature. The increases for these companies were 17.5 per cent for 1931 over 1930; 51 per cent for 1931 over 1929, and 28.8 per cent for 1930 over 1929. As of December 31, the figures are:

Company	—Number of Stockholders—		
	1931	1930	1929
American Tel. & Tel.....	645,000	567,600	469,800
Borden Company	32,300	24,300	17,100
Canadian Pacific	76,000	65,700	52,300
Consolidated Gas N. Y.....	82,900	76,200	70,600
DuPont	42,400	34,600	25,400
General Electric	150,000	116,700	60,300
General Foods	52,000	42,400	32,000
General Motors	295,900	247,800	176,600
National Dairy Products.....	57,000	45,500	31,000
New York Central.....	62,700	56,600	52,700
Standard Brands	85,800	71,200	50,600
U. S. Steel.....	174,500	145,500	120,900
Totals	1,756,500	1,494,100	1,159,300

Investment in these securities by 597,000 additional persons between 1929 and 1931 betokens faith in the future of the country and confidence in its industrial, utilities and commercial enterprises. It emphasizes reminders by the MANUFACTURERS RECORD that the business activities of the United States are owned by the people at large, rather than by little groups of so-called "capitalists." It indicates the business acumen of nearly 600,000 Americans in picking up reputedly worthwhile securities at bargain prices which presumably will yield liberal interest returns.

Beyond this, the widespread ownership of such securities by the people emphasizes the responsibility of those who guide the destinies of the corporations, and of the national, state and local legislators in whose hands lies potential legislation for constructive good or demagogic harm.

Southern Industrial Opportunities

THERE are more than 16,400 cotton gins in the South. Except for a few weeks in the summer and early fall, practically all of them are always idle. In the last few years an average of more than 2000 gins have not operated at all and many have been abandoned because of the tendency to consolidate into larger units in larger communities. Good roads and the increasing use of motor trucks help to bring this about, as well as the shift of cotton growing into the Southwest, with the establishment in that section of fewer gins but of larger capacity.

Throughout the whole cotton belt the gins are located where they can be made of the greatest value to scattered farming communities. As the Atlanta Constitution has suggested, by utilizing them before and after the cotton picking season for small scale industrial purposes, they would create an outlet for other farm products than cotton. With the installation of slight additional equipment, making use of the power already available, these gins could be converted into community food-processing plants, grain milling, feed mills and other manufacturing, utilizing farm crops that are now sent out of the district to be manufactured.

The immediate benefit to the cotton gin owner would be to lower his operating cost by spreading his capital investment over ten or twelve months of diversified activity, rather than a few weeks running time as at present. The community would be benefited by giving the farmers an opportunity to secure larger returns on crops that would be affected by the establishment of a manufacturing plant making use of these raw materials.

One's imagination does not have to be stretched to visualize other diversified industries utilizing farm products springing up around these local gins.

Cotton Bags for Cement

PRESIDENT WALTER F. JAHNCKE of the Southern Builders Supply Association has rightly protested against the action of the New Jersey Mason Material Dealers Association in urging cement manufacturers to discontinue the packing of cement in cotton cloth bags, based on the claim that it entails additional operating cost on both dealers and manufacturers.

President Jahncke, one of the outstanding old-line building and supply dealers of the South, stated:

"There are interests we should consider besides the immediate needs of the dealers alone. There is a tremendous over-production of cotton in the South and we believe some consideration should be given by various manufacturers, as well as by the people throughout the country, in an endeavor to utilize this surplus cotton. Nearly all the cotton mills of the South are allowing from seven to nine pounds extra weight to be added to all cotton-wrapped bales purchased by them, so why cannot we contribute in small measure to the welfare of other industries?"

\$63,000,000 Construction Awards

CONTRACTS awarded for construction, building and engineering projects in the 16 Southern States during the first three months of this year had a total valuation of more than \$63,000,000, according to a compilation of reports published in the DAILY CONSTRUCTION BULLETIN and in the construction columns of the MANUFACTURERS RECORD. It is conservatively estimated that the inclusion of projects not reported due to space limitations would bring the total awards to well over \$80,000,000. The showing made this year is particularly encouraging when compared with the depression period of 1921. In the first quarter of that year the valuation of awards for construction and building work in the South amounted to but \$47,820,000.

While the sum total for the past quarter is low, the March figure of \$27,079,000 indicates a decided upturn over February, when actual awards for the 29-day period amounted to \$17,604,000, and March also surpassed the January total of \$18,287,000 by nearly 50 per cent.

For this first quarter of the year, projected work shows a valuation of \$161,164,000, a gain being registered each month. Municipal, county, state and federal building work has featured the year's activities to date. Here and there private construction projects of a major nature have been initiated, together with certain carry-over work on projects started in the last half of 1931.

Compared with figures for the first quarter of the preceding year, when the valuation of awards exceeded \$179,192,000, the record for this year is not impressive, but to properly appraise the situation it must be remembered that building costs have declined sharply from 1931 levels; and moreover, in both 1930 and 1931 numerous major gas and oil pipe line projects were let to contract, increasing their totals. Nor do the figures here tell the whole story of the South's building program, for space limitations preclude the publication of items on individual projects involving an expenditure under \$10,000.

In former years city building-permit valuations gave a poor conception of the South's building program because much of the work was under way outside the municipalities, including such projects as

giant steam and hydro-electric plants, railroad extensions, industrial enterprises of magnitude and miscellaneous engineering and construction work in wide variety. Now, however, the building activity centers in the towns and cities. Building permits issued in a single day in a Southern city recently had a total valuation of \$165,000, with only one project in the list that involved more than \$10,000, and this was a \$20,000 warehouse. In Houston, for example, permits this year have been issued for 625 dwellings to cost slightly over \$1,000,000, representing an average valuation per project of \$1600. Building-permit reports indicate that in the aggregate there is a big volume of work under way in the nature of repairs, alterations and additions to residential property, as well as in the building of stores, warehouses, garages, filling stations and the like.

Large expenditures have been made in the past quarter for extensions and improvements to textile mills and in the building of new units for the manufacture of specialties, hosiery, ties and underwear. Many persons believe that the activity in the textile industry presages a revival in business generally, as this industry first showed the way out of the depression of 1921. Southern mills are in a better state of repair than ever before and, moreover, they are equipped with more up-to-date machinery, millions of dollars in the aggregate having been expended in recent months for the most modern types of automatic and labor-saving tools, sprinkler systems, humidifying outfits, wide, high-speed looms, and

for general expansion of the industry to permit greater diversification and to provide for the finishing of goods.

Engineering Work

The Government is pushing the construction of levees, revetments and contraction works and maintaining navigation on the Mississippi, all this calling for the expenditure of \$35,000,000 annually. While road work has been delayed in some states due to inability to market bonds to advantage, an appreciable volume of this class of work is under way and in sight.

Municipalities continue to expand flying field facilities; the most notable project now under way is at New Orleans where a costly seawall has been erected, the land behind it being reclaimed by dredging materials from Lake Pontchartrain. Additional facilities in the way of shops, administration buildings, hangars and the latest type lighting facilities are being provided at various Southern airports.

Utility Programs

Expansion programs of the telephone companies serving various parts of the South and Southwest indicate the steady growth of business and industry and serve as a barometer of continued expansion, inasmuch as these companies are putting millions of dollars into overhead and underground cable lines, exchanges, office structures and auxiliary plant facilities.

While expansion programs of Southern power companies are not comparable to those undertaken in 1930 and 1931, necessary work to keep pace with the growth of Southern towns and cities looms large this year in the aggregate. Nor does this mean that there are no important new power projects. The contrary is true, notable power plants, both steam and hydro-electric, having been completed, or placed under way or proposed in Texas, Oklahoma, Arkansas, Virginia and Missouri.

The petroleum industry has this year gone forward with the building of numerous pipe lines of a minor nature, the erection of casinghead gasoline plants and new refineries, and the rebuilding of established refineries, erection of tank farms and auxiliary improvements.

March, 1932

	Contracts	
	Contracts to Be Awarded	Awarded
Apartment houses and hotels	\$625,000	\$189,000
Association and fraternal	40,000	115,000
Bank and office buildings	278,000	705,000
Church buildings	695,000	328,000
City, county, government and state projects	3,573,000	5,952,000
Dwellings, costing \$10,000 and over	1,054,000	816,000
Miscellaneous	5,996,000	30,010,000
Roads, paving and bridges	10,168,000	14,748,000
School buildings	1,996,000	4,661,000
Sewers, drainage and water works	1,753,000	3,041,000
Store buildings	901,000	1,345,000
Total	\$27,079,000	\$61,910,000
March, 1931 Totals	\$68,987,000	\$88,278,000

Construction Begins on Three Baltimore Buildings

In a relatively large volume of construction now under way in Baltimore, including schools, apartments, library, commercial and industrial structures of various classes, in addition to manufacturing plants, etc., three structures on which contracts were recently awarded and construction has started will involve an outlay of more than \$2,000,000. Two apartment buildings and a school group are included, both of the apartments being erected in the upper Charles Street section and the school group in East Baltimore.

The school group, for the Sacred Heart Roman Catholic Church, of which Rev. John M. Beierschmidt is pastor, consists of a one-story, L-shaped school building, 62 by 123 feet, to contain 14 class rooms; a one-story hall, 51 by 143 feet, to seat 850, and a two-story administration building, 36 by 48 feet, all of brick and limestone construction. John F. Eyring is the architect; J. Hamilton Walker, mechanical engineer, and E. Eyring & Sons Co., general contractors, all of Baltimore.

Contracts have been awarded by the Northway Apartment Company for construction of a \$600,000 apartment building at Charles street and Bishop's road, the structure to be of brick and limestone, 42 by 210 feet, 9 stories. Palmer & Lambdin are architects and the Price Construction Company, Baltimore, general contractors. The Abell Building Company, also of Baltimore, will handle mechanical work and equipment.

The construction of a 10-story apartment building at Charles and Thirty-third streets has been started by Charles and Thirty-Third Streets, Inc., a holding company promoted by Williamson & Guy,



Northway Apartment Building Being Erected

Inc., Baltimore. Plans for the structure were prepared by Frederic A. Fletcher and general contract awarded to the

Consolidated Engineering Co., Inc., Baltimore. Kubitz & Koenig are structural engineers and J. Hamilton Walker, mechanical engineer, also of Baltimore.

Sub-contracts have been awarded on the three buildings as follows, all contractors of Baltimore, with one exception as noted:

Sacred Heart School Group

Heating—William Hellbach Heating Co.
Plumbing—George L. Schubert
Electrical work—Kingsbury-Samuel Electric Co.
Millwork—C. O. Wurzberger Sons
Roofing—Philip Carey Co.
Stone-setting—Clough & Molloy

Northway Apartment Building

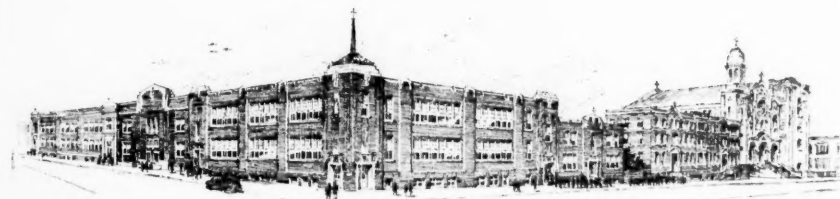
Excavation—Potts & Callahan
Brick work—Frank Downing
Structural steel and steel bars—Dietrich Bros.
Concrete—Arundel-Brooks Concrete Corporation
Limestone—Swanson Bros., represented in Baltimore by Charles H. Weller
Metal bucks—Charles H. Weller
Incinerators—Kirner Incinerator Co., Calvert Williamson
Heating—William E. Wood Co.
Plumbing—Harry L. Black & Son
Electrical work—Electromechanical Co.

Charles and Thirty-Third Street Apartments

Heating and Plumbing—Lloyd E. Mitchell
Roofing and sheet metal work—William E. Cottman & Co.
Plastering—George W. Ament
Millwork—Oettinger Lumber Co., Greensboro, N. C.



Charles and Thirty-Third Street Apartments



Church School Group Under Construction

Developments in Rural Electrification

By
GEO. W. KABLE

Director
National Rural Electric Project,
College Park, Md.

THE utilization of electricity in agriculture has come into prominence throughout the world in the past few years as a subject for study and research. In the United States, some 20 different states have organizations for investigation of the relation of electricity to agriculture. One of these, the National Rural Electric Project, with headquarters at College Park, Md., was organized four years ago to give attention to problems of national significance in connection with the use of electricity on farms. While much of the work of the National Project has centered about a group of electrified farms between Washington and Baltimore, it also has cooperated with other organizations in evaluating and disseminating the progress of rural electrification investigations throughout the country.

Agriculture as an industry is one of our greatest users of power. The 14th census credited agriculture with more available primary horsepower than manufactures and mining combined. The total horsepower-hours used annually on farms at that time was 16,000,000,000. Work animals supplied considerably more than half of this power, with gasoline engines second, and electricity furnishing less than six per cent of the total. Since the compilation of those figures, the power supplied by work animals has decreased, and that supplied by gasoline engines has materially increased. Electricity still plays a minor part.

Adopting New Types of Power

It is not surprising that use of electricity on farms is still in its infancy. Adoption of new types of power in agriculture always has followed the precedent of other industries. Only within the past decade has gasoline power been applied to tractive equipment on farms with any marked degree of success. Electricity is still on the threshold of development. It is to be expected, with the gradual development of new methods of application and distribution of electric energy, that some of the seemingly insurmountable difficulties of today will

fade as they have faded in the past with other sources of power.

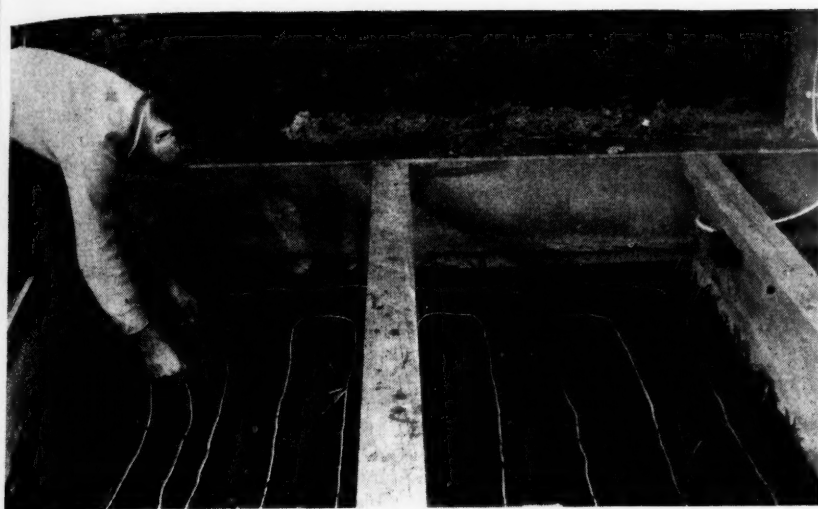
Perhaps the greatest obstacle to extending the advantages of electricity to rural territories has been a misconception on the part of both farmer and utility as to possible functions of electricity in agriculture. Until recently the mention of electricity to a farmer suggested a desirable but expensive source of light, and little else. To the utility,



Experimental Electric-Power Driven Plow, Constructed by the Detroit Edison Co.

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Lead Covered Heating Cable in a Hotbed Frame

This cable will be covered with 6 inches of soil. The thermostat which regulates the heat is shown at right side of the frame



Forcing Development of Lilies for the Easter Market Through Aid of Artificial Illumination

on test in this country; one is a small garden tractor using a one-horsepower motor and capable of performing the cultural operations ordinarily done by one horse on a truck farm. Power is supplied through a flexible rubber cable which winds automatically on a drum as the tractor moves back and forth across the field. This cable is attached to and derives its power through a trolley carriage riding on a power line extending through the center of the garden tract.

The second tractor development is a machine of greater power and using storage batteries as its source of electric current. This tractor has been used successfully for the belt operations of silo filling and threshing, and for draft operations in harvesting corn and grain.

Both of these tractors are still in the experimental stage and neither is to be recommended for general use at present. They represent preliminary steps in an effort of American manufacturers and utilities to provide an electrically-powered tractor, better adapted to American conditions than the large electric, cable-plowing units now used to some extent in Europe.

Electric Hay-Drier

The hay drier is another piece of farm equipment which has been developed in recent years to the point where it is becoming practical on many farms. Electricity plays a part in this development in supplying power for operating the drier and accessory machinery. It is not merely a machine for saving a crop from an occasional rain. Through its intelligent use a forage crop may be produced with a higher content of digestible nutrients and vitamins, and work on the farm may be organized efficiently without allowing for serious delays resulting from bad weather. In the delta district of the Mississippi valley and elsewhere in the Southern States the hay drier offers possibilities for desirable diversification in farming. Many forage plants grow luxuriantly in that area and require only some means for preservation to make them valuable farm products.

Electric Hot-Beds

A new development in agricultural use of electricity, becoming very popular this spring, is electric heat for stimulating plant growth in hotbeds and propagating benches. Experiments have shown that a flexible, lead-covered resistance wire placed in the soil will furnish very satisfactory heat for growing plants, at a cost which is entirely practical. These heating wires are laid at a depth of about six inches in the soil of a hotbed, spaced six or seven inches apart. Temperature may be regulated either manually or by a thermostat placed in

farm service meant large outlays per customer for distribution facilities, with discouragingly small returns. Early studies of this problem all lead to the same conclusion; namely, that if the farmer was to enjoy the benefits of electric power at a reasonable cost and the utility was to earn a fair return on its investment, there must be an increased use of electric service and a major part of this use should be of a type to yield a profit to the farmer.

Farm Electric Service

Development of the use of electricity in agriculture is of particular interest to the South, as indicated by recent reports based on census figures and figures of the National Electric Light Association. During the past year Georgia had the highest percentage of increase of farms served of any state in the Union, 21.4 per cent. The entire South-Atlantic section ranked high, with an

increase of 12.7 per cent in number of farms served. Increase in the Middle-Atlantic section was 8.9 per cent, and in East North Central section 10.4 per cent, while on the Pacific Coast the increase dropped to 3.2 per cent.

In the present stage of rural electric development it is natural that lights should still rank first in popularity. The automatic pressure water system comes next. Household conveniences, such as washing machines, irons, refrigerators, waffle irons and curling irons follow. These are the uses about which we know most. In the productive end of farming, feed grinders, silo fillers, milking machines and milk coolers have received much attention. There are still many possibilities in adapting electricity to the performance of the everyday tasks on the farm. The greatest potential development is for plowing and the performance of other field operations.

Within the past two years, two electric tractors have been devised and placed

the soil. Under the uniform heat produced, plants make a steady and sturdy growth. In the cutting bench where it is desirable to have the temperature of the soil or sand higher than that of the air to stimulate root growth, electric heating cables have invariably increased the percentage of plants taking root and have reduced the rooting time 10 to 25 per cent.

Light in Agriculture

The productive use of light in agriculture is only beginning to receive attention. Poultrymen have been using artificial illumination to increase the winter egg production of hens for a number of years and the practice is now commonly accepted. It seems probable that a similar use of light for stimulating the production of plants and flowers out of season will be feasible also. Ultra-violet irradiation has been shown by many years of experiment to have a stimulating effect on the vigor and production of certain animals. Its use for other purposes in agriculture, such as the irradiating of feeds and the sterilization of milk, has been under investigation.

Manufacturers' Interest in Rural Electrification

Rural electrification should have a number of points of interest to the manufacturer. Before a farmer can properly utilize electricity, his farm must be wired. This cost of wiring ranges from \$100 to perhaps \$1000, depending on the extent to which electricity is to be used. In addition to wiring, there is an ever-increasing field for electrical equipment and non-electrical machines adapted to motor operation. It is not possible to state with exactness what these requirements will be. It is



**Low Powered Feed Grinding Outfit
Developed on the National Rural
Electric Project**

The quarter-horsepower motor grinds continuously until the job is completed, when it shuts off automatically. No attention is required except to fill the hopper and start the motor. The motor may also be used for grinding tools, mixing concrete, shelling corn, and for many other small power jobs.

conservative to assume, however, that \$25,000,000 was spent for wiring and equipping the 48,940 farms receiving electric service for the first time in 1931. These farms and the 650,000 others being served at the beginning of 1930, are only partially equipped. Considering the conditions existing during the past few years, and the fact that only 10 per cent of the farms of the United States now have central station service, the field for expansion is one to invite attention.

Barge Lines to Extend Service

Memphis, Tenn.—Two privately owned lines have been authorized by the Interstate Commerce Commission, Washington, to extend their operations on the Mississippi and Ohio rivers. The American Barge Line Company, with an office in Memphis, was granted a certificate of public convenience to operate on the Ohio between Pittsburgh and Cairo and between Pittsburgh and ports on the Mississippi south of Cairo. This company now operates a common carrier service on the Ohio between Pittsburgh and Cincinnati.

The Mississippi Valley Barge Line Company, St. Louis, was authorized to extend its operations on the Mississippi north to St. Louis from Cairo. This company will provide through common

carrier service between St. Louis and Cincinnati. It now competes with the Federal Barge Line on the Mississippi south of Cairo and under the new extension will compete with the same line, a Government project, between Cairo and St. Louis.

5,584,700 Cubic Yards Earthwork

Vicksburg, Miss.—Bids will be opened April 12 in the office of the U. S. Engineer, Vicksburg, for the construction of approximately 5,584,700 cubic yards of earthwork on the east and west banks of the Missouri River in Mississippi and Arkansas. Sections of the work will be located about 5 miles northwest of Glen Allen, Miss.; at Mayersville, Miss., and about 4 miles east of Eudora, Ark.

Virginia Electric and Power Plans

Richmond, Va.—A construction program of the Virginia Electric and Power Company for 1932 covers, for the most part, necessary work in connection with operations, according to C. H. Harris, general engineer. Major expenditures will be made on "blanket requisitions," which will include extensions for new business and improvements to present facilities. All work will be handled by the company, except that the Stone and Webster Engineering Corporation, Boston, Mass., may handle some construction. Materials and equipment needed will include line material, meters, substation and power station equipment and incidental supplies. As previously announced, directors of the company have authorized an expenditure of \$1,623,000, about half of which will be expended in the Norfolk, Portsmouth and Suffolk areas. The Gas Department of the company will expend about \$170,000.

Solid Improvement

(From Columbus (Ga.) Enquirer Sun)

New evidences of further improving conditions in Columbus are constantly cropping up. The latest one is the increased use of electric power in local industries, and general uses.

The Georgia Power Company states there has been an increase of 43 per cent in consumption of electric power by the industries of its Columbus division during the months of January and February as compared with the same months of 1931.

At the same time, there was an increase of 31 per cent here among all users of electricity for the three months over 1931. Residential uses show an increase of 11½ per cent.

While rates are said to have been substantially reduced within the period, the revenue derived from the larger consumption shows an increase of 15 per cent in industry down to 5½ per cent for residential users.

This upward tendency in consumption of electricity is one of the best indications of the way the economic winds are blowing in this immediate section. Our industries do not use electricity for show. They make every kilowatt count production. It is doubtful if any other section will show 43 per cent increase in industrial consumption. The report should give great encouragement to our people and still further boost their confidence.

The fact that all classes of consumption have shown a gain here is evidence that the improved conditions are general throughout the area.

Columbus was one of the last places to feel the heavy effect of the business slump and it is now quite certain the city is among the first to make recovery.

New Wealth From Chemistry

CHEMISTRY'S latest addition to the list of potential motor fuel sources—high grade gasoline made from cottonseed—was announced by Dr. Gustav Egloff of Chicago, at the 83rd annual meeting of the American Chemical Society, held March 28 to April 1 at the Roosevelt Hotel in New Orleans. More than 1000 scientists from nearly every state in the Union were in attendance.

Dr. Egloff described the process for converting cottonseed oil into anti-knock gasoline at a cost of 35 to 40 cents a gallon, and pointed out that although at present this is too high a cost for cottonseed-gasoline to be a competitor of established commercial products in this country, there are large future possibilities for the use of great quantities of cottonseed for the purpose. He told of the possibility of obtaining from the oil a veritable treasure house of unexpected products, notably gas and Diesel engine fuels, alcohol, coke, an anti-freeze mixture for automobile radiators, a number of different gases and so on. The apparatus developed, said Dr. Egloff, is of particular value in countries where gasoline is not cheap, for it will "crack" with equal ease vegetable oils, fish oils, shale oils and even coal tar oils.

Nineteen professional divisions of the Society held separate sessions to discuss such subjects as agriculture, food chemistry, biological chemistry, chemical education, cellulose chemistry, colloid chemistry, industrial and engineering chemistry, medicinal chemistry, organic chemistry, paints and varnish, petroleum, physical and inorganic chemistry, sugar chemistry and water, sewage and sanitation.

Experiments looking to the growing of cotton like wheat, and to harvesting the whole plant with a mowing machine, were reviewed by H. J. Skinner, president of Skinner & Sherman, Boston, in discussing new uses of cotton. The speaker described the use of cotton goods in road building in experiments conducted in South Carolina, Georgia and Texas, and suggested the possibility of using cotton fabric in the building of the Mississippi River levees. Another new use described was the mounting of thin sheets of mahogany, walnut and costly woods on cotton sheeting to be used as wall covers in a manner not unlike regular wallpapering. The use of cotton duck in building construction in England

was mentioned. The use of cotton cloth stationery has increased to such a point that the annual consumption is about 3,000,000 square yards.

A prediction that tung oil production, which revolutionized the manufacture of varnish 25 years ago, may become a great Gulf Coast region industry, ranking with the growing of sugar cane, cotton and corn, was made by Dr. Henry A. Gardner, who reviewed the progress of tung oil production since the first seeds of tung trees were brought to this country in 1905 by a plant explorer of the Department of Agriculture from the Yangtze valley in China. Experiments now under way seem to promise the South a solution of what to do with its cutover lands, the speaker declared. He pointed out that a total of 50 gallons of tung oil per acre from groves 10 years of age would be sufficient to justify the planting of such groves in a large way.

Dr. L. V. Redman, president of the Society, declared that a canvass revealed only 275 unemployed members out of a total membership of more than 19,000, and that chemists generally have been the last to be dropped from industrial payrolls and the first to be taken on again. "Industries in general," he said, "have retained their research force prepared for a continuation of American prosperity."

Dr. Irving Langmuir of the General Electric Co.'s Research Laboratory, announced a discovery that gases and vapors may be taken up on the surface of solids instead of penetrating the interior, the phenomenon being called "adsorption."

Dr. Charles L. Parsons, of Washington, secretary of the Society, was awarded the Priestley medal, the highest honor bestowed by the Society. This is the fourth time the medal has been awarded. Other recipients were Dr. Ira G. Remsen of Johns Hopkins University, Edgar F. Smith of the University of Pennsylvania, and Francis P. Garvan of the Chemical Foundation.

A rare chemical—phosphagen, which gives speed to muscles and may be the essence of skill—which is secreted by the body, was described in a paper by Dr. Adam Dutcher of Pennsylvania State College. The chemical is said to supply to certain muscles the energy to contract, and plays the part of an almost light-

ning-quick transformer between two substances long recognized in muscular activity, glycogen and lactic acid. Muscular fatigue, it is declared, is an outward warning of a too great accumulation of lactic acid.

The value of cane sugar in strengthening lime-sand mortar was discussed in a paper presented by Dr. Gerald J. Cox and Dr. John Metschl, of the Mellon Institute of Industrial Research, Pittsburgh. Such an application of sugar is not new, it was pointed out, as it is believed the Romans made use of saccharine materials in mortars. Thus there is a very good reason for the empirical practice of "sweetening" mortar. Experiments by Drs. Cox and Metschl indicate that mortar which contains sugar equal to 6 per cent of the quicklime content has a tensile strength 60 per cent greater than that of sugarless mortar.

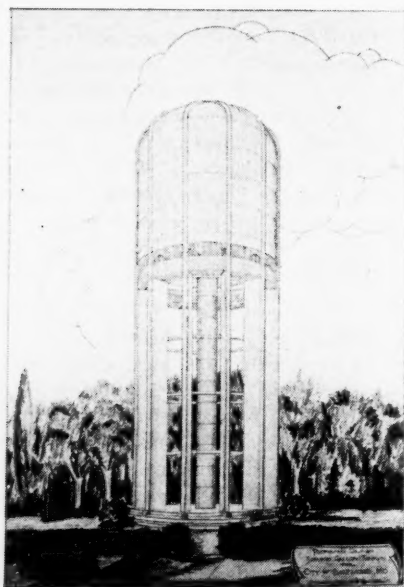
In a symposium on "Chemical Engineering Processes in the Oil Industry," in which leading oil authorities participated, Dr. R. T. Haslam, vice-president of the Standard Oil Development Company of New York, presided. Latest achievements in the industry, forecasting the possible rise of many new enterprises, were revealed in technical reports dealing with methods of adjusting oils and fuels to climatic conditions, stabilization of gasoline, and the further improvement and utilization of petroleum products and by-products.

The history of the American potash industry and its economic importance was outlined in a paper by J. W. Turrentine, who discussed the marked increase made during the past year in America's ability to produce potash salts. The American Potash & Chemical Co., producing potash and borax from Searles Lake brines, said he, has increased its capacity from 100,000 to 150,000 tons annually, and the nation's first potash mine will shortly be placed in operation by the United States Potash Company at Carlsbad, New Mexico.

Opening of a new source for fertilizers through a new process for polyhalite, a complex salt, found in considerable quantities in southeastern New Mexico and adjacent Texas, was described by Everett P. Partridge, who with Foster Fraas perfected it at the New Brunswick plant of the U. S. Bureau of Mines. The proc-

ess consists of treating polyhalite, which is insoluble in water and was heretofore rejected in all potash mining, with a reducing agent. The treatment renders the potash in the complex polyhalite soluble in water, leaving the rest of the material insoluble. After leaching, the water is evaporated and the concentrated potash product remains. A further advantage of the process claimed by its inventors is the ease with which magnesium salts may be separated from polyhalite. From the insoluble residue, metallic magnesium which is one-third lighter than aluminum can be made, it is declared.

Ornamental Elevated Water Tank for Baltimore



Contract was awarded recently by the city of Baltimore to the Chicago Bridge and Iron Works, Chicago, Ill., for erection at Towson, Md., of a 300,000-gallon capacity elevated tank, as part of the city's water system. The design, a prize winning one, is highly ornamental, and with the completion of landscaping of the grounds surrounding the tank and tower the project will prove attractive as well as serviceable.

Big Yardage of Earthwork

Memphis, Tenn.—Bids will be opened April 21 by the War Department, in the office of the United States District Engineer, Memphis, for the construction of approximately 18,761,000 cubic yards of earthwork. Proposed construction covers work on St. John's Bayou levee and in Lower St. Francis, White River and Upper Yazoo Levee Districts, involving 910,000, 1,205,000, 3,158,000 and 13,488,000 cubic yards, respectively.

We hear a lot about hidden and indirect taxes, and such things as take a lot of thinking to follow them through to a conclusion; but when we stop to fill up at a gas station, it is different. Each one of us—man or woman—must open the family purse and pay anywhere from one to seven cents a gallon in straight out-of-the-pocket taxes. Up to the present time people have not complained seriously, because they have been told that the money goes into the building of better highways, and better highways mean better living conditions and better business.

If this were the only automobile tax we were required to pay, it might not be so bad, but last year, as owners of 26,000,000 motor vehicles, we paid almost \$1,000,000,000 in taxes on the property value of our cars and for license tags, in addition to the daily tax for gasoline consumption. The need for creating increasing revenues to get our government out of the woods has set covetous eyes on this little Red Riding Hood of the tax world. The painless way in which the gasoline tax is extracted is like a fairy story. First, it was one cent a gallon, then two, then three, and now in some states seven cents—a tax equal to the entire cost of the commodity, which is startling to say the least. In the last ten years the average price of gasoline has been reduced from 30 cents to 13 cents. In the meantime, the gasoline tax has been increased 30 per cent, while the average tax today is approximately four cents a gallon. Five hundred and twenty-five million dollars was paid at the roadside gas stations last year. The growing tendency to use this fund for the support of everything in the world outside of the original conception, the building and maintenance of highways, is at the seat of the trouble.

Another thing has come out of the sudden inflation of these direct gasoline taxes, it has created gasoline bootleggers who thrive on all sorts of schemes of tax evasion above two cents a gallon. The higher the tax the more sinister this lawlessness will grow. It is claimed that this new member of the bootleg family outshines the better known ones.

When it is realized that a great major-

*Excerpts of message broadcast by Bennett Chapple, vice-president of the American Rolling Mill Company, on the regular weekly Armco Iron Master Program, from WSEXAL (short wave around the world) and WLW, Cincinnati, April 4.

Gasoline Tax*

ity of car owners have incomes of less than \$3000 a year, it means only one thing; their frugality in the purchase of a car is being taxed beyond a reasonable limit. To put gasoline taxes up so high that the people cannot afford to run their autos will kill the goose that lays the golden egg. There is another reason; more than 4,000,000 people earn their living from motor-vehicle production, and every state in the Union supplies raw materials, such as petroleum, rubber, glass, steel, and a thousand other items of production.

The plain facts are that the automobile owner now pays taxes amounting to 18 per cent on the average value of his car as compared with 2.4 per cent for improved real estate. Thoughtlessly, efforts to obtain disproportionate revenue from gasoline taxes, because it is so easy, will sink the wheels of the automobile industry into the mire more effectively than anything else. Every one connected in any way with the oil business, the automobile industry, or who owns and operates a motor vehicle, should have no misunderstanding on this point. Let's take the gasoline tax out of fairyland and keep it for the building and maintenance of highways.

Plans for \$750,000 School

San Antonio, Tex.—Plans have been completed for a \$750,000 South side senior school building to occupy the northern end of a 25-acre plot. The site will be developed to provide parking space on each side of the building, R. O. T. C. drill field, football field, baseball diamond, cinder track and other facilities. Ralph H. Cameron, George Willis and Herbert S. Green are associated architects; W. E. Simpson Co., and J. W. Beretta, engineers associated, all of San Antonio. Phelps & Dewees are supervising architects for the Board of Education.

American Ceramic Meeting

The American Ceramic Society announces that the dates for the 1933 annual meeting of the society are February 12-17, instead of in March as stated in a previous announcement.

Signs of Better Business

AMERICAN SHEET & TIN PLATE CO., Sharon, Pa., will reopen 20 tin mills at the Farrell plant this month, providing work for approximately 1800 men. The plant has been closed since early in January.

HUNTSVILLE FIBER & VENEER WORKS, Huntsville, Ala., which has been operating on a piece-time basis, has resumed full-time operations due to receipt of new orders.

GRAHAM-PAIGE MOTORS CORPORATION, Detroit, Mich., reports that production of its 8-cylinder model since January 1 now exceeds the total number of eights it has built heretofore in any one calendar year.

FLORIDA POWER CORPORATION, operating unit of the National Electric Power Co., in its report for 1931 shows net income applicable to preferred and common dividends of \$405,000 after all charges, compared with \$323,000 for 1930. Gross earnings for the year were \$2,667,000 as compared with \$2,584,000. Balance available for bond interest, after depreciation, was \$1,204,000 compared with \$1,198,000.

VENEER PRODUCTS CO. and the Tyler Veneer Mfg. Co., both of Newton, Texas, recently received orders for 50 carloads of tub bushel baskets, chiefly for Pacific Coast delivery. The plants will be able to run full time for at least two months, filling orders now in hand.

NATIONAL LIFE INSURANCE CO., Montpelier, Vt., reports an income last year from premiums on policies new and old, and from interest on investments, of \$29,534,000, the largest sum it has ever collected in a single year. The company paid \$18,411,000 to policyholders for death claims, dividends, cash surrender values, and other considerations, which is over \$2,000,000 more than it has paid in any previous year. Moreover, it loaned \$10,392,000 to policyholders, as against an average loan disbursement in the preceding ten years of \$4,326,000. At the close of the year assets had increased by \$6,165,000, reaching a total of \$144,508,000, and with policy reserves greater by \$5,676,000 than ever before. It had a surplus of \$8,245,000, not only after figuring reserves on an exacting basis, but after valuing its bonds at amortized values.

SOUTHERN DESK CO., Hickory, N. C., one of the largest woodworking plants in the community, is on a full production basis for the first time in six months, and Geo. F. Ivey, president of the concern, announces that orders in hand will insure steady employment for the regular mill force for the next few months. The company secured an order for about 4000 pieces of school furniture for Washington, D. C., and will furnish seats for the new city auditorium at Raleigh, N. C.

W. T. GRANT CO., chain store operators of New York, report a net income of over \$3,105,000 for the fiscal year ending January 31, an equivalent of \$2.59 on shares outstanding. With the exception of 1930, last year's earnings are the greatest in the company's history. During the past year 54 new stores were opened, bringing the total in operation on January 31 to 404. Leases have already been signed providing for 34 new stores in 16 states this year.

BALTIMORE & OHIO RAILROAD COMPANY reports a gain of \$689,000 in net operating income for February, over the corresponding month last year, or \$1,402,000, as against \$713,000, a gain of 96.5 per cent. This is the second month the road has been able to register an improvement in net income, January having made a gain of \$26,000 or 2.01 per cent. The gains were accomplished by rigid economies in operation. Combined operating income for January and February aggregates \$2,757,000, against \$2,041,000 for the similar period a year ago, a gain of \$715,000, or 35 per cent.

MONTGOMERY, ALA., businesses and industries have added more than 2000 workers to their payrolls in recent months, Jesse B. Hearin, Secretary of the Chamber of Commerce, announces. Textile plants have increased production 40 to 50 per cent, employing 1500 additional operatives. Lumber firms have added 600 men. The U. S. Army Tactical Air School at Maxwell Field has added 1030 men. Contract has been awarded for a \$750,000 post office, on which 100 men are engaged. Building of a \$600,000 village for officers at Maxwell Field is under way. County farmers are successfully producing poultry and cattle. In other words, Mr. Hearin announces "Montgomery is definitely on the up grade."

SOUTHERN TEXTILE MILLS are purchasing new equipment and supplies in volume, representatives of supply houses in Charlotte, N. C., announce. The Barber-Coleman Co. is supplying high speed warping and automatic spooling equipment to several mills. The Firth-Smith Co., of Boston, has received numerous orders for automatic cleaner equipment. Wm. Lee, machinery agent, announces the sale of special machinery for several mills. At Elizabeth City, N. C., where 340 Scott & Williams knitting machines are being installed in the Elizabeth City Hosiery Mills, lace attachments are being added to full-fashioned hosiery equipment. In addition to actual orders, supply representatives state that inquiries are mounting and the volume of business generally is increasing. The Asheville (N. C.) Hosiery Company is employing 190 operatives and is working 24 hours daily. The Pacolet Knitting Co., Inc., Tryon, N. C., has completed installation of a hydro-electric power unit and is planning full time operations for the production of three styles of men's half hose. The Clinchfield Mfg. Co., Marion, N. C., has completed electrification of No. 1 Mill. Mill No. 2 was electrified some years ago. The two mills produce wide print cloth from raw cotton, employ 700 operatives and used 7500 bales of cotton in the last six months of 1931. Running day and night, the mills work each shift of employees 42 hours a week.

THE MISSOURI-KANSAS-TEXAS LINES have recalled approximately 1000 employees for work in connection with repair and reconditioning of rolling stock. The company's shops in Waco, Texas, recently opened for a ten day period, providing work for 245 men.

LOADING of revenue freight for week ended March 19 totalled 584,634 cars, the highest for any one week so far this year, according to reports filed by the railroads with the Car Service Division of the American Railway Association. This was an increase of 9153 cars over the preceding week.

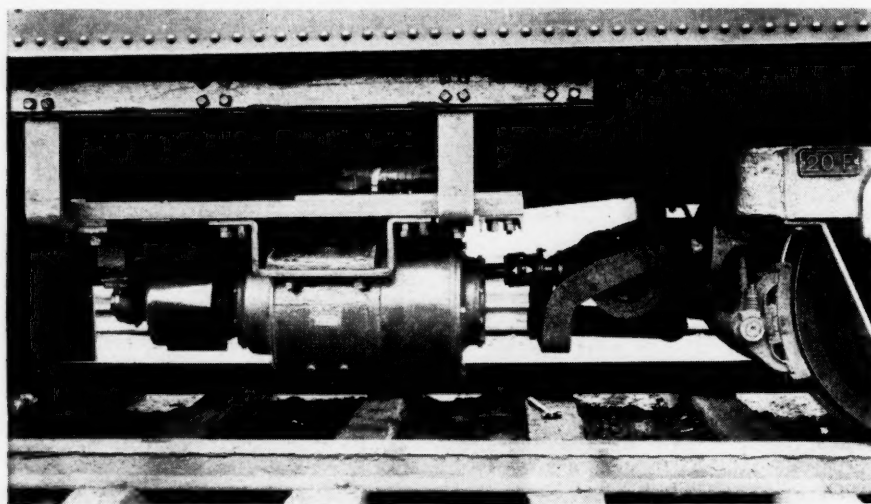
WEST PENN POWER Co., Pittsburgh, Pa., reports for 1931 net income after all expenses, taxes, depreciation and interest, of \$8,070,000, equal to \$27.17 earnings a share on preferred stocks, compared with \$7,722,000, or \$25.99 a share on preferred stocks in 1930.

All-Electric Air-Conditioning System for Railroad Cars

AN individual-car, all-electric air-conditioning and refrigerating system for railroad passenger cars, using a newly-developed axle generator and storage battery for motive power in place of an internal combustion engine, and

speed it provides sufficient output to operate the entire air-conditioning equipment. At higher speeds excess power is stored for use in pre-cooling or when the train is standing in stations.

The combination of axle-driven gen-



(Above)
Close-up View Showing Specially Designed Axle Generator and Drive of Air-Conditioning and Refrigerating System

Freon (F-12), a newly-developed gas, as the refrigerating medium, was recently announced by the York Ice Machinery Corporation, York, Pa. An initial order for this equipment for 78 passenger cars has been placed by the Baltimore & Ohio Railroad.

The new system is a self-contained unit in each car, which permits flexibility of operation independent of other cars in the train and of terminal facilities. It comprises two parts: first, the refrigerating and air-conditioning equipment, and, second, the power system for supplying a constant and independent source of power.

The electric power system consists of a large axle-driven three-brush generator, developed by engineers of the Baltimore & Ohio and the York Ice Machinery Corporation, and a new high capacity storage battery, which fits in a standard A. R. A. battery box. The generator operates at variable speeds. Its amperage rises very sharply with a slight increase in train speed, and at a very low train

erator and high capacity storage battery permits each car system to operate independent of the position of the car and regardless of whether the car is in motion. It can be adjusted to meet the requirements of any run as to period of pre-cooling, speed, length of run, stops and so on.

The use of Freon, chemically known as dichloro-difluoro-methane and commonly known as F-12, is a distinct innovation. This gas, developed by the Kinetic Chemical Co., Inc., a subsidiary of E. I. Du Pont de Nemours, is described as a colorless, odorless, non-corrosive, non-combustible and non-inflammable refrigerant which may be used in equip-

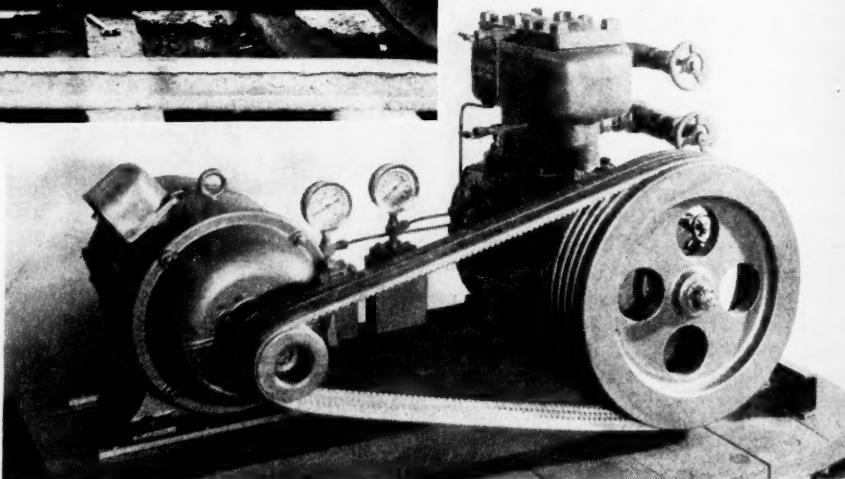
ment passing through the tunnels into New York City.

In the operation of the new all-electric system, as in the operation of earlier York systems, air is drawn from the car into the air-conditioning unit beneath the ceiling at one end of the car. Here it passes over the frosted fin-surface cooling coils. Heat and moisture are absorbed by the coils and foreign matter is removed by contact of the air with the frosted surface. If desired, the air may be mixed in the air-conditioning unit with fresh air drawn through a grille in the ceiling of the vestibule and passing through a filter. The conditioned air is discharged into a duct along one side of the car in the space usually devoted to ventilators, and from this duct it is distributed evenly over the entire length of the car, the duct outlets being so arranged with deflectors as to eliminate all drafts. The air is returned to the air-conditioner through the return grille and the process is repeated.

The new design of the air-conditioning unit with fin surface coils and the use

(Below)

York Refrigerating Unit for Railroad Cars, Designed for Freon Gas (F-12) Operation, and Motor With High and Low Pressure Cutouts



of F-12 is said to have decreased space requirements and lightened weight, permitted elimination of the brine cooler and pump and to have increased the capacity of the equipment about 50 per cent.

Bids on Clinic Building

Washington, D. C.—The Department of the Interior, John H. Edwards, Assistant Secretary, opens bids April 19 for the construction of a clinics building at Freedmen's Hospital in this city. The structure will be 3 stories and basement, 87 by 40 feet, of brick, reinforced concrete and terra cotta.

IRON, STEEL AND METAL MARKET

Steel Production Again Shows a Slight Decline

Pittsburgh, April 4—[Special.]—For a third week steel production has declined, after increasing in January and the fore part of February, then holding the higher rate until early last month. Last week's rate, at about 15,500,000 tons of ingots a year, was above December but below other months.

Demand is as variegated and wide-spread as it was 30 days ago. So far as can be observed there has been no conspicuous loss of demand from any individual consuming line, while no case of marked increase is seen. Apparently there has simply been a little slipping all around.

The steel trade has been quick to interpret the latest decrease in demand as a reflection of hesitancy on the part of buyers due to fears engendered by the reluctance the House of Representatives showed to balancing the federal budget. It is common talk in the steel trade that there is too much playing politics, and regret is expressed that this chances to be an election year.

The precedents of active times, as to seasonal swings in steel demand, have been held not to apply in a depression, hence there is no disposition to relate the recent decrease in steel demand to the fact that in active years demand began to decrease late in March, on an average, after a sharp increase for three months. This time there was only a mild increase.

The intensive sales effort of the automobile industry inaugurated specifically late last week is watched by the steel trade with no little interest, but with not much enthusiasm, on account of so many predictions spread over the last six months that the automobile industry was about to limber up. So far there has been very little increase in steel buying by the automobile trade.

The tin plate making season has been delayed by various uncertainties but production is now trending upward. A fair season, on the whole, is expected.

Railroad interest in steel is gradually increasing, without much tonnage being actually placed thus far. Producers believe the increase will continue.

Fabricated structural steel work, 7500 tons, for the Detroit postoffice has been let. Awards have if anything been averaging a shade higher in the last few weeks than earlier in the year.

The new stabilized prices for finished steel products are getting more into

force. They have been quoted for weeks on new business but there were old obligations. There were first quarter contracts in the majority of lines and specifying was permitted through March 31, delivery to be completed this month. In wire products, advanced prices prevailed for first quarter but jobbers had stocked up at old prices. They are now buying somewhat more freely, entirely at full prices.

Metals Steadier Except Tin

New York, April 4—[Special.]—The metal markets have been steadier. Tin has been an exception, dipping to 20½¢ per pound on Thursday, a new low for the year, because of the rise in sterling exchange and weaker sentiment in tin circles. Silver was somewhat stronger early in the week, reaching 30 cents per ounce, but dipping somewhat later. Copper, lead and zinc have been for the most part unchanged, though zinc rather firmed to 2.80¢ per pound, East St. Louis, after a few sales had been made at 2.775¢ per pound.

Lead has been the most active. Not only have virtually all classes of consumers been in the market but consumers have bought for more forward shipments than for several weeks, showing confidence in the strength of the market. Sales of copper have been very light. Export sales have averaged only 300 tons daily. The silver market was stimulated by reports that several governments would be buying more metal for coinage purposes. It is also rumored that China must buy more metal for reconstruction of devastated areas, though the question suggests itself as to where China will get the wherewithal to make the purchases.

Operations in the steel industry have declined to 22 per cent of capacity but a revival in April is expected. Metal consumption in the automobile industry is likely to go forward rapidly within the next few weeks. Ford has announced his new models and prices, and other makers are starting vigorous sales campaigns. Automobile production should be much larger if for no other reason than to stock up dealers.

Copper prices have been steady all week at 6 cents per pound for home delivery and 6¼¢ for export, the latter being the "official price." During the past week custom smelters have named no "special price" at under the official quotation. At the official figure, all classes of producers have been sharing

in the meagre foreign business. In the near future several American copper producers will announce their curtailment plans to bring world production down to a 20 per cent gait. The Phelps Dodge Corporation has announced it will suspend operations at two of its plants as soon as ore reserves are worked up, maintaining restricted output at its two other properties. A group of South African copper producers has announced their falling into line with lower production schedules.

The rapid rise in sterling exchange caused tin futures on the National Metal Exchange to dip to the lowest level since the metal exchange was formed in 1928. In the outside market buying was the briskest of the year at the middle of the week, as consumers took advantage of bargain quotations. Tin plate operations have increased to 45 per cent of capacity as against 40 per cent a week ago, which means a better consumption of pig tin.

All classes of lead consumers have been buying freely except the cable manufacturers. Prices are the same at 3¢ per pound, New York, and 2.90¢ East St. Louis. Inquiry for zinc has been improving which accounts for the slight stiffening of price.

Birmingham Plants Are Modern and Efficient

Birmingham, Ala., April 4—[Special.]—The machine age problems are being met in the Birmingham district by modern production methods, lower cost of manufacture and a more diversified output. Development in the past two or three years has been nothing short of marvellous, with pig iron, steel, coal mining, coke manufacturing and other by-products of coal, cement and clay products and what-not all coming in for consideration.

Completion of the modern and capable sheet mill of the Tennessee Coal, Iron & Railroad Company is but a matter of a few weeks now. The universal plate mills of the Tennessee Company and the Gulf States Steel Company are also modern plants and will meet varied demands in that direction.

Anticipations on the start of the second quarter of year are encouraging although statistics for the past month are rather disappointing. Coal, coke, pig iron and steel have been dragging along, with steel operations of the district, based on ingot production, estimated at

21 per cent capacity. The rail mill awaits reputed orders which will be received as the railroads see their way clear financially.

Structural steel fabricating shops have been maintaining fairly good schedules but have been working on backlogs. Several contracts of more or less size are in the offing, including 1000 tons for the new postoffice and courthouse at Chattanooga. Ingalls Iron Works Co. finally received contract for a dredge for the U. S. engineers at Galveston and will fabricate 600 tons of steel here and build the dredge at Mobile, having under lease a portion of the Chickasaw Shipbuilding plant of the T. C. I. The Connors Steel Company has been receiving a number of small tonnage orders for reinforcing concrete bars and some flat shapes and will probably resume operations at the mills here during the next fortnight.

Pig iron base prices remain firm, \$10 to \$11, No. 2 foundry. Shipments of iron either to local consumers or elsewhere are not aggregating the make, with four

blast furnaces producing, three on foundry and one on basic. A little foundry iron is still being shipped to other districts. The old material market remains slow with prices low.

Bids on Federal Building

Meridian, Miss.—Bids will be opened April 25 in the office of Jas. A. Wetmore, Acting Supervising Architect, Treasury Department, Washington, for the construction of a new United States post office and court house building here, exclusive of elevators, dumbwaiters and lighting fixtures. Krouse & Fort, Meridian, are the architects.

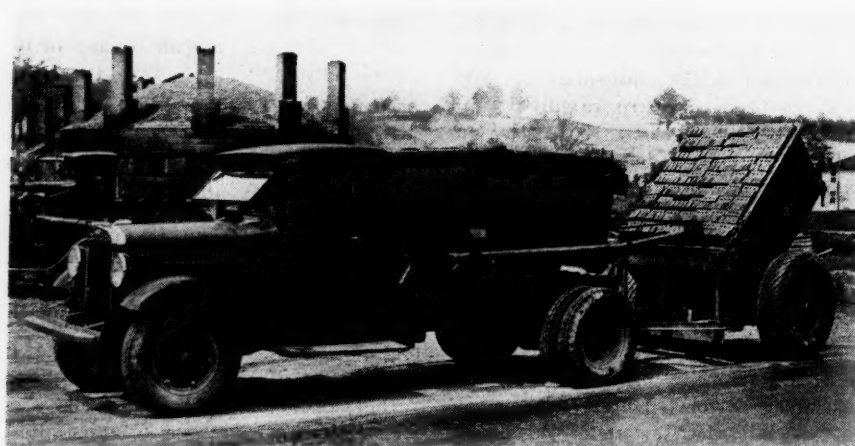
Complete \$600,000 Post Office

Clarksburg, W. Va.—Clarksburg's new Federal building, including post office, erected at West Pike and Fifth streets at a cost of \$600,000, has been completed and will be occupied early in April.

Novel Type Loading and Unloading Equipment

The Southern Shale Brick Co., and the Roanoke-Webster Brick Co., of Roanoke, Va., use Fontaine demountable bodies on trucks and semi-trailers for delivering brick from their plants at Webster, Va., to Roanoke and surrounding territory, including Lynchburg, Rocky Mount and other points within a 50-mile radius. The containers on trucks and trailers are not only demountable, but interchangeable, and the hoist and equipment on the truck are used to load and unload both truck and trailer. It is not necessary for the trailer to be pulled into congested areas or into nar-

row alleys for loading or unloading. These operations can be carried on from near the main highway, hundreds of feet from final destination. The truck delivers its own load, then the load from the trailer. The builders point out that the quick-loading and unloading of trucks and trailers, by the truck driver alone, avoids the necessity for vehicles to stand at either loading or unloading points, and facilitates continuous travel, thus enhancing earning ability of the combined equipment. The demountable bodies and trailers are produced by the American Truck & Body Co., Martinsville, Va.



Demountable Bodies Used on Trucks and Semi-Trailers

All-Aluminum Wheelbarrow



The light-weight wheelbarrow pictured above is constructed entirely of aluminum, with exception of the axle, and is a product of the Cleveland Wheelbarrow & Manufacturing Co., Bedford, Ohio. The sheet metal tray is "blanked" out of 14-gage aluminum sheet and formed and beaded in the usual manner. The handles are tubing, the braces are aluminum channel sections. Heavy plate is used for the wheel disc, and the tire is fabricated from bar aluminum. Roller bearings in the wheel facilitate its movement. The high strength aluminum alloys used throughout enable the barrow to stand up under hard usage. It has a capacity of 3 cubic feet of wet concrete, or 4 to 5 cubic feet of sand. It weighs but 37 pounds.

Austin Convertible Shovel and Crane

A new $\frac{3}{8}$ -yard convertible shovel and crane was recently introduced by the Austin Manufacturing Company, manufacturing division of the Austin Western Road Machinery Company, Chicago. This machine, as well as similar units of varying capacities, finds wide application in industrial service, and in addition to excavating problems occasionally encountered around industrial plants, the convertible shovel is called upon to handle many material handling problems. Probably one of the most useful attachments for a small tractor shovel is the crane with telescopic boom, equipped with sheave hook block. Such a boom may be about 25 feet long with a 10-foot telescopic extension, providing a 35-foot reach. A $\frac{3}{8}$ -yard shovel when converted as a crane will handle loads of approximately 3000 pounds at a radius of 15 feet.

Baltimore County Metropolitan District $4\frac{1}{2}$ per cent bonds in the amount of \$250,000 have been sold to Chase Harris Forbes Corporation, New York, and J. Harmanus Fisher & Sons, Baltimore, at 101.782.

NEW AND IMPROVED EQUIPMENT

Oil Burning Commercial Range

The Motor Wheel Corporation, Heater Division, Lansing, Mich., has designed an oil burning cooking range, the use of which is expected to effect material savings for restaurants, hotels and country clubs. In restaurant tests, this new



Generates Gas Without Wicks

unit, the M-W Oil Burning Range, using fuel oil, is said to have shown savings in operation cost of more than 60 per cent. The burner used is the "Valjean" patent, employed for the past 12 years in galley ranges of a large number of U. S. battleships, lighthouse tenders and vessels of the Dollar Line. This burner generates its own gas without wicks, weights, springs, pressure pumps or other complicated mechanisms, while the control system is the same as is employed in construction of M-W weather control units and boilers for house heating.

Pipe Boom for Crawler Tractor

The Highway Trailer Co., Edgerton, Wis., announces a new high capacity pipe boom for the Model GH Trackson McCormick - Deering Crawler - Tractor. This new unit is a side boom of the live type, and in combination with the tractor will be known as the Trackson-Highway Pipe Layer. Its development is a result of field research and active cooperation of leading pipe line contractors who have sought a high efficiency unit without unwieldy size or excess weight. Counter-weights are placed effectively without being obstructive, while natural hand-steering and convenient levers permit speedy operation and easy, accurate control over any ground. With-

out stifle, the lifting capacity is 19,875 pounds, with load two feet from tractor. Both boom and lifting winch have worm and gear drive, with the safety feature of lowering under power. Power take-off is of heavy-duty type, especially designed for Model 20 McCormick-Deering, and providing two speeds forward and one reverse. Castings are of electric steel, and the whole boom frame assembly is hot riveted and electric welded. Details may be had from the Highway Trailer Co. or from the Trackson Company, Milwaukee.

For Weighing Bulk Cement

To meet specifications of state highway departments for a weighing device which eliminates the "human element" in weighing bulk cement, the Butler Bin Company, Waukesha, Wis., has introduced a semi-automatic weighing hopper. Known as the Electro-Interlocked Bulk Cement Weighing Hopper, this machine is described in a new bulletin issued by the company, as a supplement to another bulletin recently issued, covering the use of bulk cement in a broad and general way. The latter describes and illustrates late developments in complete bulk cement handling plants, showing various methods of transporting, unloading and

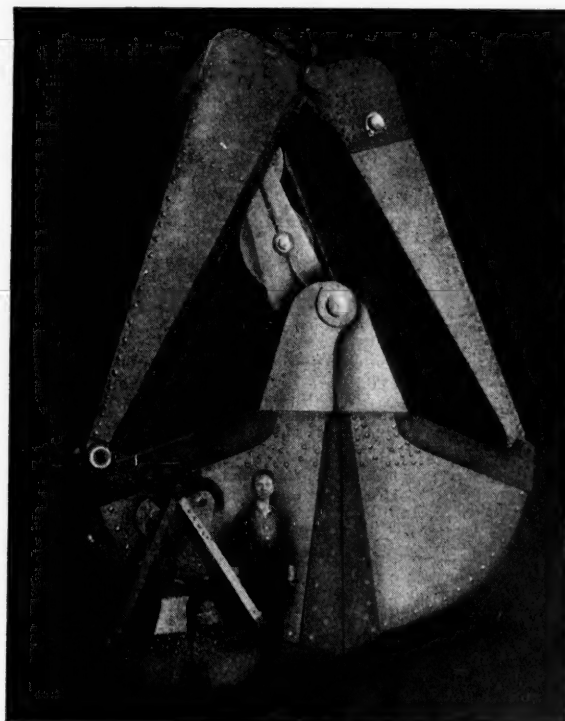


Semi-Automatic Weighing Hopper

elevating bulk cement. The use of bulk cement in central mixing plants of a semi-permanent nature is also described.

"Williams" Type Clam Shell Buckets

The Wellman Engineering Company, Cleveland, Ohio, which recently acquired the Clam Shell Bucket business of the G. H. Williams Company, now have in production buckets of every size for practically every purpose. An accompanying illustration indicates the range of sizes of the "Williams" buckets, a $\frac{1}{2}$ cubic-yard digging type alongside a large coal-handling grab bucket of $16\frac{1}{2}$ cubic yards capacity. The company carries in stock for various requirements a standard line of "Williams" Power-Arm type of fast-digging buckets, from $\frac{3}{8}$ -yard to 3 cubic yards capacity, such as the new Williams "Champion" series of Favorite Buckets for general purposes; "Champion" Hercules bucket for extra hard digging; "Champion" Clean-Up Rehandler bucket for rapid unloading of cars and barges and for cleaning up shallow piles of loose material. Special buckets in the Power-Arm and Multiple Rope types are also built to meet unusual conditions.



From the Small to the Large

CONSTRUCTION DEPARTMENT and NEW ENTERPRISES

Covering the initial announcements of new undertakings with additional information about enterprises previously mentioned. The date at the end of an item indicates preliminary facts were given in a previous issue.

When writing to a new firm or corporation the name of at least one of the incorporators should be placed on the envelope to expedite its handling by the local postoffice. Mail may be delayed unless complete address is given.

Building and Construction Proposed and Contracts Awarded; Manufacturing, Mining, Power, and Land Developments; Public Works; Transportation; Communication; Financial Enterprises; New Business Opportunities Reported in the Sixteen Southern States.

The Daily Construction Bulletin gives each business day advance news published in this weekly review. It is invaluable to those requiring prompt information. Subscription price \$40.00 a year.

Airports, Airplane Plants, Etc.

Fla., Miami—City, Dept. of Aviation, J. E. Younge, Chrmn. Municipal Aviation Bldg., County & Municipal Bldg. and Municipal Airport, confirms purchase by city of 1729 acres north and west of Municipal Airport to take care of present and future aviation needs; part of this area north of airport will be cleared off to form safety space for emergency landing field; 160 acres northwest of airport will be used for airplane practice field; 100 acres lying in and around municipal golf course will be set aside for water reserve; 25 acres lying adjacent to present Naval Reserve Aviation Base will be added to flying field to increase runway; 80 acres adjacent to Navy Field will be put into service as connecting link between present Navy Flying Field and land set aside for future dirigible mooring site. 3-31

Fla., Miami—Airways Division, Bureau of Lighthouses, negotiating for lease of tract of land in vicinity of Miami as radio beacon site; necessary radio equipment will be installed by Dept.

D. C., Washington—Ludington Flying Service, Inc., James M. Eaton, Pres., Philadelphia, Pa., and Eastern Air Transport, Inc., Candler Bldg., Atlanta, Ga., operating subsidiary of North American Aviation, New York City, reported, considering consolidation of two systems; both companies serve Washington.

La., Barksdale Field, Shreveport—Capt. George E. Lamb, Constructing Q. M., receives bids April 25 for constructing flying field drainage system at Barksdale Field. Following estimating: P. M. Davis, 401 Commercial Natl. Bank Bldg.; Shearman Concrete Pipe Co. of Louisiana, Hollywood Rd.; Red River Construction Co., all Shreveport; W. H. O'Toole Construction Co., Monroe; Carl Erickson, Pinconning, Mich.; J. B. McCrary Co., Citizens & Southern Bank Bldg., Atlanta, Ga.; Thomas H. Brockman, 1744 Canal Bank Bldg.; John B. Mooney, 408 Balter Bldg.; H. A. Forrest, 6319 Catina St.; Globe Construction Co., Inc., Louisiana Bldg.; A. P. Boh & Co., 827 Perdido St., all New Orleans; Harrison-Wright Co., P. O. Box 928, Charlotte, N. C.; McEachin & McEachin, Southern Bldg., Little Rock, Ark.; N. A. Saigh Co., 510-12 Builders Exchange Bldg., San Antonio, Tex.; Shelton Construction Co., Inc., 246 Fifth Ave., New York City; R. T. Myers Construction Co., Hattiesburg, Miss.; Buinn Construction Co., Louisville, Ky.; B. E. Walker Construction Co., Standard Life Bldg., Jackson, Miss.; Gjellefald Construction Co., 447 Addison Ave., Elmhurst, Ill.; Rheimer & Kroeger, 305 Wyoming St., San Antonio, Tex.; Barber Brothers Construction Co., Baton Rouge; O. Scully Co., 7658 S. Loflin St., Chicago, Ill.; Shuptrine Construction Co., Jackson, Miss.; Columbia Engineering & Contracting Co., Inc., 410 Broadway, New York City; Volz Construction Co., 105 Baltimore Bldg., Memphis, Tenn.; B. P. Panas & Co., Inc., 718 M. & M. Bldg., Houston, Tex.; W. H. Nichols & Co., Inc., Mercantile Bldg., Dallas, Tex.; Jas. Thomas, 1106 La. Natl. Bank Bldg., Baton Rouge; Jacobsen & Mortensen, Tuscaloosa, Ala.; Dysard Construction Co., 300 Thrower Bldg., Atlanta, Ga.; George J. Robinson Co., Pine Bluff, Ark.; J. P. Babcock, 211 Spicer Bldg., Paris, Ill.; G. W. Walker & Co., 611 Main St., Natchez, Miss.; C. W. Greeson, Opelousas; R. V. Lewis, Golden Meadows; A. & Goldberg, Inc., Ga-

hagan. Material Dealers: Merriweather Supply Co., Shreveport; W. S. Dickey Clay Mfg. Co., Texarkana, Ark.; Tri-State Culvert Mfg. Co., 491 S. Second St., Memphis, Tenn. 3-24

Miss., Brookhaven—Brookhaven Chamber of Commerce, reported, negotiated lease with Eugene Freine for tract adjoining city limits on north for municipal airport.

Miss., Natchez—O. L. Hazelwood, Airport Engr., reported, completed plans for landing field on Somerset Place. 3-24

N. C., Fort Bragg—U. S. Govt., Capt. L. L. Simpson, Constructing Q. M., reported, contemplates erecting \$100,000 hangar.

Va., Langley Field—J. L. Smith, Building & Loan Bldg., Portsmouth, reported, has contract for alterations to flight operations laboratory at Langley Field.

Bridges, Culverts and Viaducts

Proposed Construction

Florida—State Road Dept., H. H. Wells, Chrmn., Tallahassee, widen Stevenson's Creek bridge, Clearwater.

Maryland—State Roads Comsn., L. H. Steuart, Sec., Baltimore, opens bids Apr. 18 for steel, conc. bridge, approx. 2200 ft. long, substructure of timber piling supporting cylinder piers, and including steel swing span providing channel opening of 70 ft., with all necessary operating equipment, operator's house, and approaches, over South River, road from Camp Parole to Mt. Zion, AA-117-17.

Mississippi—State Highway Comsn., C. M. Williamson, Director, Jackson, opens bids April 13 for conc. box culvert, FAP 79-B, Madison County.

Okl., Tulsa—City Comms. and St. Louis-San Francisco Ry., F. G. Jonah, Ch. Engr., St. Louis, Mo., reached tentative agreement for new viaduct to replace wooden span over Frisco right-of-way, N. Utica Ave.; plan using steel taken from W. Third St. viaduct; place conc. deck on new span; \$18,000.

Tennessee—State Highway Comsn., R. H. Baker, Commr., Nashville, plans letting contract soon for bridge over west fork Little Pigeon River, Highway 35, Sevierville, Sevier County; may build highway through Knox County.

Tennessee—See Roads, Streets and Paving. Tex., Port Arthur—State Highway Comsn., G. G. Wickline, State Bridge Engr., Austin, complete plans within 3 weeks for \$100,000 bridge over Intracoastal Canal 1 mi. south of West Port Arthur.

Contracts Awarded

Mo., Clayton, St. Louis—See Roads, Streets and Paving.

Canning and Packing Plants

Ky., Lebanon—C. L. Gooch, Eubank, reported, considering removal of plant to Lebanon.

Cottonseed-Oil Mills

Okl., Chickasha—Chickasha Cotton Oil Co., C. P. Lamons, Gen. Supt., let contract to J. B. Klein Iron & Foundry Co., 4004 W. Second St., Oklahoma City, for 250 tons of steel for construction of two 50 ft. diam. by 60 ft. high steel tanks that will be used for

storage of cotton seed; contract was let as whole to above company with exception of some conc. work which company will do with own forces. 3-24

Okl., Norman—Norman Oil Mill Co., capital \$75,000, incorporated; D. L. Larsh, John G. Lindsay.

Drainage, Dredging and Irrigation

Ala., Mobile—Mobile County, J. R. Peary, County Engr., Courthouse, opens bids Apr. 18 or drainage canal, Improvement No. 24 to Improvement No. 23; 10,000 cu. yd. exca., 5000 cu. yd. hauled $\frac{1}{4}$ mi.

Florida—Maj. R. A. Sharrer, Dist. Engr., U. S. Engr. Office, Montgomery, Ala., advises regarding work on channel from Apalachicola River to St. Andrews Bay, work will be maintenance dredging to be executed by government plant and hired labor; will begin in about 10 days, starting from Apalachicola River and will require about 60 days to complete. 3-31

Louisiana—Bd. of State Engrs., D. C. Daniel, Sec., New Orleans Court Bldg., New Orleans, opens bids Apr. 12 for following: Cleaning Bayou Boeuf, Red River, Atchafalaya and Bayou Boeuf Levee Dist., Rapides Parish, approx. 19,000 ft. long, approx. 190,000 cu. yd.; drainage ditches, Melville south, Red River, Atchafalaya and Bayou Boeuf Levee Dist., St. Landry Parish, approx. 18,000 ft. long, 6000 cu. yd.; Bordelonville West Levee Drainage, Red River and Bayou des Glaisses Levee and Drainage Dist., Avoyelles Parish, cross ditches, approx. 4300 long, 14,000 cu. yd., parallel ditch 61,500 ft. long, 49,000 cu. yd.

La., Lake End—Bd. of Commrs. of Red River-Bayou Pierre Levee and Drainage Dist., Lake End, J. L. Brunson, Pres., opens bids Apr. 27 for improving drainage in Bayou Pierre, Red River and De Soto Parishes, approx. 500,000 cu. yd., bottom width 40 ft.

Va., Hampton, Langley Field—Constructing Quartermaster, opens bids Apr. 13 for dredging in vicinity of seawall.

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.

D. C., Washington—Office of Supv. Archt., reported, will probably have plans out for bids soon for steam distribution system to serve government buildings: Combustion Engineering Corp., 200 Madison Ave., New York, reported, has contract at \$426,431 for boilers, stokers, induced and forced draft fans and soot blowers for four, five or six 2500-h. p. straight tube boilers for central heating plant; plan for building to house these boilers and accessory equipment will not be out for bids for several months; engineering design and supervision in hands of United Engineers & Constructors, Inc., 112 N. Broad St., Philadelphia, Pa. 3-24

Ky., Smiths Grove—See Want Section—Bids Asked.

Maryland—Susquehanna Transmission Co. of Maryland, owned by Pennsylvania Water & Power Co., Lexington Bldg., Baltimore, reported, applied to Public Service Com'n., Baltimore, for permission to construct steel tower transmission line through Cecil County to supply power from Safe Harbor, Pa., for proposed electrification of Pennsylvania R. Co. Cecil County Com'n., reported, having granted permission for construction of line to start at point on Pennsylvania-Maryland line near Conowingo Creek and extend to Perryville, connecting there with substation supplying electricity for Perryville-Washington line in Maryland to run 12 miles parallel to Susquehanna River.

Missouri—Federal Power Com'n., Washington, will consider at an early meeting, applications of Doniphan Hydro-Electric Co., Doniphan, and Current River Power Co., Kansas City, for preliminary permit for water power projects on Current River above Doniphan. 12-3

N. C. Grassy Creek—Grassy Creek Electric Co., Inc., Grayson County, Va., chartered; B. C. Waddell, Pres., Grassy Creek; operate electric lines.

Tenn., Maryville—City, W. H. Willard, Recorder, advises election on power plant bonds has been indefinitely postponed. 3-17

Tex., Fort Sam Houston—Harrison-Wright Co., Box 928, Charlotte, N. C., reported, has contract at \$19,825, for electric underground lighting system for constructing Q. M. San Antonio. 3-24

Fertilizer Plants

La., Gretna—The Davison Chemical Co., E. Heubeck, Baltimore Trust Bldg., Baltimore, Md., advises will not consider plans until later part of May for building new plant at Gretna to replace burned plant. 3-10

Va., Kilmarnock—Menhaden Products, Inc., will not rebuild burned fertilizer plant.

Foundry and Machine Plants

Mo., St. Louis—City Foundry Co., Ninth St. and Park Ave., reported, rebuild burned casting plant. 3-31

N. C., High Point—Shelton Machinery Co., incorporated; M. M. White, 302 Lindsay St.

Okla., Oklahoma City—Snetcher & Pittman, Inc., capital \$20,000, incorporated; P. R. Snetcher, 943 N. E. 15th St.; machine shop.

Okla., Tulsa—Texas Pipe & Tool Co., incorporated; R. E. Sigmon, 734 N. Trenton St.

Garages and Filling Stations

Ala., Montgomery—Segrest-Milvee Motor Co., Inc., chartered; G. W. Covington, Jr., 1223 S. Perry St.; and L. L. Segrest.

D. C., Washington—Lord Baltimore Filling Stations, T. J. O'Connell, American Bldg., Baltimore, Md., reported, let contract to Martin Bros., 1341 Connecticut Ave., N. W., for filling station, Fourth and R. I. Ave.; brick and stucco.

Fla., Palm Beach—C. D. Coleman, Gen. Contr., 540 13th St., reported, erect garage east side of Poinsettia Ave. at Pershing Way.

Fla., Clearwater—City Motors, Inc., chartered; S. E. Simons, Wolverine Apts.

Fla., DeLand—Campbell Motor Co., Inc., chartered; C. D. Campbell, O. Kruse.

Fla., Fort Myers—Motor Inn Corp., incorporated; R. T. Hawkins, D. Blackman.

Fla., Pensacola—G. A. Wright erect filling station Chase & Baylen Sts.

Ky., Middleshore—Moore-Chevrolet Co., incorporated; J. L. Moore, D. G. Colson.

Ky., Paducah—Geo. W. Katterjohn & Son (Contractors), Box 83, erect gasoline filling station; brick and conc., conc. floors, imitation metal tile roof; owner builds; Southern Oil Stores, Inc., Martin Bldg., Birmingham, Ala., Archt.; S. E. Towery, of Southern Oil Stores, Inc., Birmingham, Ala., Const. Engr.; will install three 12,000 gal. storage tanks; compressor; floodlights, etc. See Want Section—Machinery and Supplies. 3-21

Md., Baltimore—Standard Oil Co., St. Paul and Franklin Sts., reported, construct filling station, Calvert & Federal Sts., and make alterations to filling station, Belvedere Ave. & Falls Rd.; soon take bids.

Md., Baltimore—B. H. B. Ennis, Jr., 3315 Crossland Ave., reported, has contract for filling station alterations and addition Club Store and Woodbrook Station for Sherwood Bros., Baltimore Trust Bldg.

Md., Baltimore—Lord Baltimore Filling Stations, Inc., T. J. O'Connell, American Bldg., Engr., receiving bids for filling station

and wrecking building, Pratt & Hanover Sts. Following estimating: Fidelity Engineering Corp., 6300 Belair Rd.; Loechei Con. Co., Munsey Bldg.; Thos. B. Leonard, Brehm's Lane; Ehrhardt & May, 5723 Harford Rd.; Mueller Con. Co., 3304 Barclay St.; F. Keller & Son, 3405 Echodale Ave.; E. Eyring & Son, 808 S. Conkling St.; Kelly Con. Co., 1006 E. Lanvale St.; North Eastern Construction Co., 6 West Madison St.; Frank Marine, 2 E. Lexington St.; Mullan Cont. Co., 3945 Greenmount Ave.; Consolidated Engineering Co., 20 E. Franklin St.; bids opened April 9. 2-11

Md., Baltimore—Charles D. Hayes, 3967 Roland Ave., reported, has plans by W. C. Bell, 4305 Falls Rd., for garage, 3936 Elm Ave.; conc. block, 1 story, 35x20 and 15x20 feet.

Md., Baltimore—Lord Baltimore Filling Stations, Inc., T. J. O'Connell, Engr., American Bldg., reported, have plans, soon call for bids for alteration and addition filling station 1132-38 Cathedral St.; 1 story; stucco. 3-31

Md., Baltimore—Dobbs-Binswanger, Inc., 12 E. Lanvale St., chartered; Clayton C. Dobbs, 3626 Oakmont Ave.

Miss., Hickory—H. P. Hill, reported, has plans by P. J. Krouse, Archt., M. & W. Bldg., Meridian, for conc. block filling station, Highway 80, with comp. roof and conc. driveways.

Mo., Kansas City—Breslin Oil Co., incorporated; E. M. Chase, 2609 N. 20th St.

Mo., Kansas City—Westport Tire and Service Co., incorporated; R. E. Schneider, 3800 Rainbow Blvd.

Mo., Washington—City, reported, retained Burns & McDonnell Eng. Co., 406 Interstate Bldg., Kansas City, to make survey for possible erection of power plant.

N. C., Oxford—Cooper Motor Co., capital \$100,000, incorporated; Henry B. Cooper, L. W. Stark.

Okla., Grandfield—Grandfield Motor Co., capital \$25,000, incorporated; W. C. Salome, Jr., J. F. Parrish.

Tenn., Knoxville—Union Oil Co., 221 E. Jackson Ave., incorporated; Frank Preston, Phil Jones.

Tex., Big Lake—Reagan Motor Co., incorporated; S. R. Moore, L. P. Powell.

Tex., Dallas—Pacific Avenue Motor Co., capital \$20,000, incorporated; H. I. Ghagan, 5506 Ross St.

Tex., Fort Worth—Harris Motor Car Co., capital \$15,000, incorporated; C. M. Harris, 1212 Summit St.

Tex., Raymondville—Boggs Motor Co., incorporated; J. L. Boggs, Nellie Wright.

Tex., Wills Point—Rhodes Motor Co., incorporated; J. J. Rhodes, B. W. Bruce, Jr., M. A. Rose.

Va., Alexandria—Albert Kahn, Inc., Architects and Engrs., Marquette Bldg., Detroit, Mich., engineers for Ford Motor Co.'s service building, let general contract for building to Worden-Allen Co., 208 S. LaSalle St., Chicago, Ill.; Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit, Mich., have contract for steel sash; Belmont Iron Works, 22nd and Washington Ave., Philadelphia, Pa., reported, has contract for 580 tons of struc. steel; Merritt, Chapman & Scott, Fidelity Bldg., Baltimore, Md., lately noted having contract for 1800 piles for foundation. 3-31

Va., Emporia—Harrell Chevrolet Corp., capital \$25,000, incorporated; L. C. Harrell, Jr., North Emporia.

Gas and Oil Enterprises

Ky., Burkesville—Sunnybrook Oil and Gas Co., capital \$100,000, incorporated; W. A. McGuire, Henry S. McGuire.

Ky., Paducah—Gulf Refining Co., Frick Bldg., Annex, Pittsburgh, Pa., advises enlarged station for receiving gasoline; leased some property from city to permit barges to dock and supply this station by water; work by company's forces. 3-31

La., Shreveport—Em Ark Drilling Corp., incorporated with D. W. Harris, Pres.; subsidiary of Arkansas Natural Gas Corp., Shreveport, and Empire Gas & Fuel Co., Bartlesville, Okla.

Missouri—St. Louis Industrial Gas Co., H. L. Ruppert, Pres., 402 Pine St., St. Louis, reported, has preliminary plans for natural gas pipe line from Hugoton Field, Kansas and Oklahoma to St. Louis; also for local distribution system in St. Louis.

Mo., Excelsior Springs—Missouri Power & Light Co., Kansas City, reported, granted natural gas franchise.

Mo., North Kansas City, Kansas City—Union Oil Co., Howard A. Cowden, Pres., 1721 Iron St., reported, plans expansion program; erect 2 story and basement building Iron St.

Okla., Beggs—Beggs Gas Service Co., capital \$75,000, incorporated; F. H. Spicer, Beggs; David M. Logan, Okmulgee. 12-17

Okla., Oklahoma City—Kantox Oil Co., capital \$25,000, incorporated; John Koberg, 2201 W. 13th St.

Okla., Oklahoma City—Marion Oil Corp., capital \$100,000, incorporated; E. F. Briscoe, F. C. Hall, 1444 N. Denner St.

Okla., Oklahoma City—Virginia Petroleum Co. of Oklahoma, capital \$50,000, incorporated; C. A. Franklin, 520 S. Darlington St.

Okla., Poteau—Service Gas Co., capital \$150,000, incorporated; Jas. F. Orr, C. B. Saviers; successors to Spiro Gas Co.

Okla., Tulsa—Grove Petroleum Co., capital \$55,000, incorporated; Louis R. Travis, 2025 S. Cheyenne St.

Tex., Dallas—Piedmont Oil Co., incorporated; J. A. Brown, 1014 Maybelle St.

Tex., Fort Worth—Lafayette Oil Corp., incorporated; R. M. Coleman, 1207 Fairmount St.

Tex., McAllen—Valley Refining Co., incorporated; Walter K. Campbell, Roy B. Jones.

Tex., Midland—Calif.-Texas Leasing Co. and Presidio Petroleum Co., Presidio, Tex., James F. Sadler, Ch. Executive, Los Angeles, Calif., reported, construct pipe line from Midland, to Topolobampo, Mexico, Pacific Coast seaport, to carry West Texas crude and a pipe line to connect at Midland with West Texas Pipe Line Co.'s gas line to Amarillo field; Homer W. Rowe, Midland, is representative of company; charter for two lines from Midland to Presidio and from Ojinaga to Topolobampo will be applied for shortly.

Tex., Orange—Moore-Emerson Oil Co., capital \$15,000, incorporated; R. A. Moore, S. A. Emerson.

Tex., Tyler—Haynes B. Ownby Drilling Co., capital \$20,000, incorporated; Haynes B. Ownby, H. F. Dunn.

Tex., Tyler—W. E. Mack Oil Corp., chartered; W. T. Mack, Monroe, La.; Paul Tucker, Tyler.

Tex., Tyler—Big State Petroleum Corp., incorporated; Harry G. Knowles, 600 Avondale St., Houston.

Va., Radford—New River Oil Co., Inc., capital \$50,000, incorporated; A. M. Harvey.

W. Va., Filbert—Penn-Ohio Gas Co., W. A. Post, Land Agt., Tazewell, Va., reported, acquired 500,000 acres land in 5 counties of southwestern Virginia and McDowell county; let contract to E. M. Shields, Drilling Contr., Butler, Pa., and Mount Pleasant, Mich., for well at Filbert; soon let contract for other wells.

Ice and Cold-Storage Plants

Ala., Anniston—Home Ice Co., Inc., organized with A. H. Little, Pres., completing plant on Fourth St. west of Noble St.; install modern ice machinery.

Okla., Oklahoma City—Southwest Utility Ice Delivery Co., capital \$50,000, incorporated; M. H. Silverman, Atlas Life Bldg., Tulsa.

Tex., Dallas—United States Cold Storage Corp., E. M. Dadds, Pres., 500 E. Third St., Kansas City, Mo., reported, leased portion of Santa Fe terminal warehouse with options on other space to triple present lease for distributing cold storage plant; C. L. Moss, Jr., 3718 Cragmont St., Dallas, Mgr.

Tex., Hitchcock—Hitchcock Ice and Service Co., incorporated; J. J. Tarpey, W. L. Wilson; will operate properties formerly operated by South Texas Utilities Co. at Hitchcock, Alta Loma, Arcadia and Algoa.

Land Development

Alabama—Wm. J. Bateman, Chicago, Ill., reported, acquired holdings of Irvington Land Co., at Irvington in Mobile County, consisting of 6000 acres containing farm land and pecan groves.

Fla., Orlando—Florida Reconstruction Corp., incorporated; E. L. Bridges, E. D. Mullineaux.

Fla., Tampa—Fay Tone, Inc., chartered; F. L. Cowles, 109 E. Lafayette St.

Fla., West Palm Beach—Florida Cities Service Corp., incorporated; J. F. Phillips, W. Goldman.

Md., Baltimore—Dimmeling Real Estate Co., 602 S. Broadway, incorporated; Charles J. H. Dimmeling.

Md., Baltimore—Pines-on-the-Severn, Inc., 1209 N. Charles St., chartered; Wendell D. Allen, Calvert Bldg.

Md., Baltimore—Lock Raven Corp., 1408 Fidelity Bldg., incorporated; Wm. A. Hahn, Fidelity Bldg.

Mo., Cape Girardeau—Eddie Lahar, Inc., capital \$20,000, incorporated; Eddie Lahar.

Mo., Eureka—Double Diamond Tourist Camp, incorporated; Wickliffe A. Parker, Richard C. Carpenter.

Mo., St. Louis—Morneo Realty Co., incorporated; Michael O. Fischer, 3622A Hydraulic St.

Mo., St. Louis—Taber Realty Co., incorporated; Charles S. Gross, 914 Wainwright Bldg.

Mo., New Madrid—Hunter Allen & Co., Inc., capital \$250,000, incorporated; Thomas B. Allen, Sikeston.

Okla., Enid—Bosler Realty Co., capital \$20,000, incorporated; Carl Kruse.

S. C., Charleston—Warrington Realty Co., incorporated; Paul M. Macmillan, G. W. Behlemer.

S. C., Columbia—Atlas Co., incorporated; J. M. Ulmer, 1209 Washington St., Bessie B. Ulmer.

Tenn., Memphis—Park Grove Realty Co., incorporated; W. T. C. Berlin, 245 Kenilworth St.

Tex., Palacios—Seacoast Properties, Inc., chartered; Robt. L. Price, L. S. Appleton.

Va., Roanoke—Roselawn, Inc., chartered; Harry Rosenberg.

Lumber Enterprises

Ark., Hughes—Kellogg Lumber Co., Inc., Memphis, Tenn., reported, acquired Red Gum Plantation, a 3000 acre tract from George C. Brown Lumber Co.

Miss., Lumberton—R. D. Love, Kiln, reported, acquired sawmill and dry kiln of Hines Lumber Co., also leased McLain saw mills and will re-saw about 500,000 board feet of lumber.

Miss., Stephenson—Foster Creek Lumber Corp., George P. Bywater, Sec., Room 403 Whitney Bldg., New Orleans, advises purchased Foster Creek Lumber and Manufacturing Co.'s property for Protective Committee for Foster Creek Lumber and Mfg. Co.; but will not operate it. 2-24

Mining

Alabama—Butler Bros., St. Paul, Minn., reported, plans erecting \$40,000 Fuller's Earth plant at Pratt's Station, Barbour County, between Clayton and Louisville.

Mo., Kansas City—A. A. A. Material Co., incorporated; C. W. Marshall, 5701 Paseo St.

Mo., Kansas City—Luminous Paint Corp., incorporated; W. S. Anderson, E. M. Critchfield, 7027 Brookside Rd.

Tex., Houston—Independent Exploration Co., capital \$12,000, incorporated; A. L. Smith, 1214 Howard St.

Va., Ripplemead—Ripplemead Lime Co., Inc., capital \$15,000, incorporated; Bernard Mason.

Miscellaneous Construction

Arkansas—U. S. Engr. Office, Vicksburg, Miss., has low bid from Wills Construction Co., St. Louis, Mo., at 9.75 cents per cu. yd., for 146,000 cu. yd. earthwork, west bank Red River, Garland Levee Dist.

Ark., Helena—See Memphis, Tenn.

Ark., Sulphur Springs—Ozark Colony, Walter R. Eaton, Mgr., constructing series of ornamental lakes in which fish will be placed; M. B. Thompson, Denver, Colo., associated with Eaton in enterprise.

Ga., Atlanta—G. W. Cooley, 462 Decatur St., S. E., excavating for swimming pool. Wieuca Rd.; conc., 250x150 ft.; owner builds by day labor and sub-contracts; private plans.

Md., Sharpsburg—Office of Quartermaster, Headquarters Third Corps Area, Baltimore, opens bids April 12 for rubble stone retaining and guard walls on avenues and roads, Antietam Battlefield.

Mississippi—U. S. Engr. Office, Vicksburg, let contracts for 32,980 cu. yd. earthwork, Panola-Quitman Drainage Dist. Floodway, Panola County: Item P-1, 3700 cu. yd.; Item P-2, 3130 cu. yd., and Item P-3, 12,880 cu. yd., Mike Harvey, Sardis; Item P-4, 13,290 cu. yd., Dixie Sand & Gravel Co., Crenshaw. 3-24

Missouri—U. S. Engr. Office, St. Louis, has low bid from M. A. Wogan Construction Co., Kansas City, at \$29,862 for approx. 1460 l. f. standard pile clump dikes, Missouri River, Dozier Bend, mile 49 to 51.

Mo., Caruthersville—See Memphis, Tenn.

Tenn., Memphis—U. S. Engr. Office, 1006 McCall Bldg., plans calling for bids within 60 days for conc. seawalls with steel sheet piling cut-off walls at Caruthersville, Mo., and Helena, Ark.

Tex., Beaumont—City, Frank L. Bertscher, Park Supt., opens bids April 19 for 10 pieces of playground equipment and 20 light

standards, wading pool, 40x20 ft., 3 regulation conc. tennis courts and 3 combination volleyball, basketball and tennis courts with asphalt surface; approx. \$10,000.

Va., Hampton Roads, Norfolk—Bureau of Yards and Docks, Navy Dept., Washington, plans grading 56 acres, naval operating base.

Miscellaneous Enterprises

Ala., Mobile—Swift & Co., W. H. Horton, Engr. Dept., Union Stock Yards, Chicago, Ill., reported, receives bids soon for \$80,000 unit for packing plant; 2 stories, 95x66x140 ft., rein. conc., brick and tile walls, misc. steel, tar and gravel roof, steel sash and doors, insulation, conc. floors; Brazier-Miller & Newbanks, Inc., Norris Bldg., Atlanta, Ga., and R. E. Sundberg Construction Co., 269 N. Royal St., Mobile, estimating. 11-26

Ark., Ozark—Charles E. Matthews Hardware Co., incorporated; Charles E. Matthews, R. M. Matthews.

Ark., Pocahontas—Randolph County Publishing Co., incorporated; Carson Higginbotham, Havenden Springs; Louis Spence, Pocahontas.

Fla., Daytona Beach—Capt. J. H. Howard, formerly of Jacksonville, reported, acquired boat works of Frank E. Matthews.

Fla., Miami—Sea-Bord Amusement Co., incorporated; G. J. Border, V. C. Seaver, 232 N. E. 55th St.

Fla., Palm Beach—Palm Beach Tile Co., Inc., chartered; E. M. Jamison, W. A. Bound.

Ga., Atlanta—F. J. Cooledge & Sons, 1314 Murphy Ave., S. W., Harold N. Cooledge, Pres., plans erecting building for manufacture paints, varnishes, etc.; size of buildings not decided; daily output 1000 gals.; install varnish manufacturing equipment. 3-31

Ga., Savannah—Cut Art Stone Co. incorporated; M. E. Kleinstaub, E. Heiss.

Ga., Washington—Wilkes County Co-Operative Creamery Assn., has building, will install machinery. See Want Section—Machinery and Supplies.

Ky., Corbin—Corbin Contracting Co., incorporated; S. M. Dunn, P. A. Dunn.

Ky., Louisville—Lincoln Adjustment Co., incorporated; Robt. I. Leopold, 1601 Spring Dr.

Ky., Louisville—Louisville Chemical and Exterminating Co., incorporated; B. J. Wight, 2331 Burnett Ave.

La., New Orleans—Radio Specialty Corp., capital \$50,000, incorporated; Jno. Cristadoro, 2421 Gladiolus St.

La., New Orleans—Paramount Laundries, Inc., capital \$50,000, incorporated; Paul I. McGill, 2536 St. Phillips St.

Md., Baltimore—Capital Mfg. Co., 703 Harvey St., incorporated; Leon Pritzker, Melvin Sklar; decorators.

Md., Baltimore—Tellig Management Co., 1109 Calvert Bldg., incorporated; J. Craig McLanahan, Calvert Bldg.; engineering.

Md., Baltimore—T. E. Carson & Co., Inc., 10 W. Chase St., incorporated; Edw. C. Wilson, Park Ave. and Laurens St.; installing oil burners and heating apparatus.

Md., Baltimore—American Cider & Vinegar Co., W. A. Boykins, Jr., 1916 Cold Spring Lane, construct steel water tanks, same address; steel, 30 ft. diam., 30 ft. high; Hammond Iron Works, Warren, Pa., Contrs. for steel work.

Md., Baltimore—Modern Heat & Smoke Controller, Inc., 802 W. 35th St., incorporated; Joseph H. Pepper, Baltimore; James W. Gilbert, West Hazleton, Pa.

Md., Baltimore—Maritime Publishing Co., Inc., 1930 Clifton Ave., incorporated; Maj. Harvey L. Miller, 1319 F St., N. W., Washington, D. C.

Md., Baltimore—Western Shore Freight Line, Inc., 800 Baltimore Life Bldg., incorporated; George R. Coleburn, Baltimore Life Bldg.

Md., Baltimore—F. D. Carozza Construction Co., 403 Old Town Natl. Bank Bldg., incorporated; Fred D. Carozza, Old Town Natl. Bank Bldg.

Md., Baltimore—Berry Storage Corp., Canton, incorporated; James D. Berry, Oil City, Pa.; James R. Sloane, 50 Broadway, New York City.

Md., Crisfield—L. C. Quinn & Sons, Inc., chartered; Egbert L. Quinn, Wallace M. Quinn; printing.

Mo., Farmington—Rice Stix Dry Goods Co., 10th and Washington Aves., St. Louis, and Chamber of Commerce, reported, interested in erecting 2 story, part basement building 100x135 ft. for shirt factory; rein. conc., brick

and steel; cost \$50,000; J. Boehmer, care of Stix Dry Goods Co., Engr.

Mo., Jefferson City—Leslie Taylor Construction Co., capital \$20,000, incorporated; Leslie Taylor, N. M. Logan.

Mo., St. Louis—Fluffy Maid Curtains, Inc., chartered; Jonas Razovsky, 1117 Clara Ave.

Mo., St. Joseph—Dugdale Packing Co., Inc., and Belle Sts., H. P. Dugdale, R.F.D. 1, started erection of dressed beef, veal and lamb plant, daily output 50 head; 60x100 ft., brick and conc. floors, comp. roof, cost of building \$20,000; equipment, \$15,000; install ice machine, boiler, scales, killing floor equipment, cooler equipment, etc. Strop & Block, Contrs., 5th and Edmond Sts.; C. E. Dillon, Archt., Kansas City. See Want Section—Machinery and Supplies. 3-3

Mo., St. Louis—Blendex Co., capital \$30,000, incorporated; Hezekiah Sanders, 317 N. 11th St.; manufacture oils.

Mo., St. Louis—Ill-Mo Battery Co., incorporated; Mrs. Alice Weitzel, 6100 Wanda St.

Mo., St. Louis—Squadree Safety Sash Mfg. Co., capital \$50,000, incorporated; Chas. Drill, 4459 Wilcox Ave.

Mo., St. Louis—Harford & Co., incorporated; E. M. Harford, 440 Belleview St.; rubber products.

Mo., St. Louis—Southern Laboratories, Inc., chartered; John J. Frei, 860 Moorland St.

N. C., Albemarle—City Laundry of Albemarle, Inc., capital \$25,000, incorporated; E. O. Dry, E. W. Ridenhour.

N. C., Goldsboro—Carolina Shoe Rebuilders, Inc., chartered; Lewis Simon, A. J. Gordon.

N. C., Rocky Mount—Rabil Mfg. Co., B. D. Rabil, Pres., establish work shirt, overall and work pants plant; erect building 35x75 ft. on E. Grand Ave.; install 90 machines; remove equipment from Everetts.

N. C., Winston-Salem—Douglas Battery Mfg. Co., capital \$20,000, incorporated; G. Wilson Douglas, 1724 Virginia Rd.

Okla., Chickasha—Bake-Rite Bakery, C. V. Leonard, reported, let contract to B. B. Benson, for bakery; 1 story; 50x120 ft.; brick.

Okla., Oklahoma City—Sterling Milk Products Co., Edw. F. Comegys, Jr., Mgr., 322 N. Western St., reported, contemplate erecting addition to present building at cost of \$50,000 and ice cream plant, cost \$100,000; 2-story, brick.

Okla., Oklahoma City—Sunray Beverage Products, Inc., chartered; V. C. Cossotta, 715 N. E. 20th St.

Okla., Oklahoma City—Chickasha Amusement Co., capital \$20,000, incorporated; B. J. McKenna, 2312 W. 14th St.

Okla., Ponca City—Continental Laundries, capital \$20,000, incorporated; F. A. Hoyer, Eula Hoyer.

Tenn., Jefferson City—Broadcast Printing Co., incorporated; A. D. Albright, M. W. Meter.

Tex., Alice—Alice Hardware Co., incorporated; Maurice Rednick, George J. Wait.

Tex., Cleburne—Coca-Cola Bottling Co. incorporated; T. J. Brown.

Tex., Dallas—Ozonized Water Co. incorporated; Herman E. Nesbitt, 1314 Daniel St.

Tex., Fort Worth—Coca-Cola Bottling Co., capital \$100,000, incorporated; C. A. Lupton, 2328 Medford Court, West.

Tex., Gladewater—Clark Tool Co., incorporated; Fred Clark, Fred F. Korp.

Tex., Houston—Parker Bedding Co., 1112 N. Main St., reported, rebuild burned plant, install new equipment.

Tex., Houston—San Jacinto Wharf Co. incorporated; R. L. Blaffer, Humble Bldg.

Tex., San Antonio—Western Pneumatic Co., incorporated; James W. Taylor, 601 Peck St.

Tex., San Antonio—Neon Signs and Service, Inc., chartered; J. H. Denyr, 307 San Pedro St.

Tex., San Antonio—Mexican Arts and Crafts, Inc., chartered; Victor E. Creighton, J. E. Hennegan, 1911 N. W. 24th St.

Tex., San Antonio—S. E. Knowlton Creamery, 1415 W. Summit Ave., erected \$40,000 plant on Fredericksburg Rd. between Martinez Creek and Parmoor Drive; L. Harrington Co., Archt. and Engrs. 3-31

Tex., Waco—Ethical Products Co., incorporated; R. H. Roark, G. C. Thomsen; medicinal preparations.

Tex., Texarkana—Butternut Bread Co., A. C. Wortham, Propr., reported, having plans prepared by Witt, Seibert & Halsey, for erecting building 10th St. and State Line Ave.; 1 story; brick; 85x140 ft.; install travelling oven, stationary bowl high speed mixer; daily production 15,000 loaves; cost \$75,000.

Va., Lynchburg—Rockford Co., for making paper made of John H. 000 boxes.

Va., Navy Dept.—for filling under man.

Va., Sout.—chartered; manufactu.

Va., Sout.—contract f. Works.

W. Va., W. Tingle—burned pl. Jersey Cit.

Motor

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Supplies. 3-3
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iders, 317 N.

Va. Lynchburg—Rockford Fibre Container Co., Rockford, Ill., reported, establish plant for making fibre boxes and containers using paper made from chestnut pulp, a product of John H. Heald & Co.; daily capacity 100,000 boxes.

Va. Quantico—Bureau of Yards and Docks, Navy Dept., Washington, D. C., rejected bids for filling at marine barracks; reopens bids under modified specification on April 13.

Va. South Hill—Tarzan Products Co., Inc., chartered; J. S. Dortch, George W. Flynn, manufacture plastic rubber, wood putty, etc.

Va. Suffolk—Conrad Bros., reported, have contract for addition to Coca Cola Bottling Works.

W. Va. Nitro—Seydel Chemical Co., P. W. Tingley, Supt., reported, will rebuild burned plant; main office 135 Halladay St., Jersey City, N. J.

Motor Bus Lines and Terminals

Ala. Montgomery—Montgomery Motor Express Co. filed application with Public Service Comm'n. for permission to operate interstate freight traffic between Montgomery and Alabama-Georgia state line en route to Atlanta; route will include Tuskegee, Auburn and Opelika; hearing April 20.

Ky. Lexington—Consolidated Coach Corp., Guy Huguhlet, V. P. in charge of operations, Johns Bldg., Walnut St., reported, considering site for erection union bus station.

Md. Easton—Victor Lynn Transportation Co., 8 Vine St., Philadelphia, Pa., reported, applied for franchise to operate motor truck line between Eastern Shore and Baltimore with Easton as terminus.

Md. Baltimore—Louis Applefeld, Applefeld Clothing Co., 217 W. Baltimore St., owner of building S. W. Cor. Redwood and Liberty Sts., rebuild structure; first floor occupied by Nevin Bus Line. 3-31

Okla. Oklahoma City—Tri-State Trucking Co., capital \$25,000, incorporated; J. F. Callhoun, 727 N. E. 19th St.

Okla. Oklahoma City—Transportation Systems, Inc., capital \$25,000, incorporated; Carl C. Magee, 1912 W. 18th St.

Okla. Oklahoma City—Hugh Breeding Transport, capital \$25,000, incorporated; Chas. A. Percival, 1323 N. W. 23rd St.

Va. Norfolk—Norfolk Southern Bus Corp., L. B. Wicksham, Gen. Mgr., W. P. Ashburn, Traffic Mgr., advises that effective March 1 the Virginia Bus Line and Coastal Coach Lines were consolidated with Norfolk Southern Bus Corp.; unified service under management of L. B. Wicksham; equipment consists of 24 modern buses; no immediate plans for expansion.

Railways

Ala. Dothan—Alabama Public Service Comm'n., Montgomery, recommended consolidation of Alabama, Florida & Gulf R. R., A. L. Lohman, Owner & Exec. Officer, Dothan, Ala., and Marianna & Blountstown R. R. Co., J. C. Packard, Pres. and Gen. Mgr., Blountstown, Fla., to create direct line from Dothan to Myron, Fla.

Va. Richmond—Richmond, Fredericksburg & Potomac R. R. Co., R. J. Rouse, Pur. Agt., ordered 125 tons steel beams and bars from Wayne Iron Works, Wayne, Pa.

Va. Roanoke—Norfolk & Western Ry. Co., Clyde Cooke, Pur. Agt., ordered locomotive steel tires for second quarter of 1932 from Railway Steel-Spring Co., 30 Church St., New York; orders to be sent to successful bidder as requirements arise. 3-24

Railway Shops and Terminals

Mo. Kansas City—Kansas City Terminal Ry. Co., John V. Hanna, Ch. Engr., let contract to Swenson Construction Co., Shubert Theatre Bldg., for mail handling building; earth and rock exca., struc. steel and rein. conc., 60x375 ft., 1 story, conc. floors, comp. roof, rock foundation; building, \$200,000; equipment, etc., \$250,000. 3-3

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Georgia—State Highway Bd., J. W. Barnett, Chmn., Atlanta, reported, let contract soon for paving approaches to new conc. bridge over Little River, Highway 10, Thomson to Washington.

Ga., Atlanta—State Highway Bd., J. W. Barnett, Chmn., plans starting work soon on widening and repaving Lee St. and highway which is continuation of it, McCall's Crossing southward to Fulton County line; \$250,000.

KENTUCKY—State Highway Comsn., Frankfort, opens bids Apr. 27 for 5 roads in following counties:

Jackson—5.6 mi. grading, draining, Tyner-Bond road, junction with Bosworth Trail at Tyner to Bond;

Logan—10.3 mi. grading, draining, surfacing, Russellville-Central City road, Russellville to Lewisburg;

Lyon—9.0 mi. grading, draining, Eddyville-Cadiz road, Eddyville to Lampasco;

Lyon-Trigg—6.9 mi. grading, draining, Eddyville-Cadiz road, Lampasco to beginning of state maintained graded road approx. 4.7 mi. north of Cadiz; (bids will be received on two sections described above separately and combined as one project);

Trigg—4.7 mi. surfacing, Cadiz-Eddyville road, Cadiz toward Eddyville to end of state maintained graded road.

KENTUCKY—State Highway Comsn., Frankfort, has low bids for 8 roads in following counties:

Henry—8.886 mi. 18-ft. surfacing, 24 to 30 ft. grading, draining, Gratz-Carrollton road, S. P. 230 A-GS, Southeastern Construction Co., Eminence, \$61,696, for corr. metal pipe, grade and drain; 4.947 mi. 18-ft. surfacing, 24 to 30 ft. grading, draining, Gratz-Carrollton road, S. P. 230 B-GS, Southeastern Construction Co., \$42,180, for corr. metal pipe, grade and drain;

Carroll—7.410 mi. 18-ft. surfacing, 24 to 30 ft. grade and drain, Gratz-Carrollton road, S. P. 230 C-GS, Southeastern Construction Co., \$82,693, for corr. metal pipe, grade and drain;

Carroll-Henry—21.243 mi. 18-ft. surfacing, 24 to 30 ft. grade and drain, Gratz-Carrollton road, S. P. 230 ABC-GS, Southeastern Construction Co., \$184,608, for corr. metal pipe, grade and drain;

Kenton—4.012 mi. 20-ft. surfacing, Covington-Morning View (DeCoursey), S. P. 104 B-S, DeSalvo Construction Co., Cincinnati, Ohio, \$68,418, using rein. conc. paving (awarded contract);

Nicholas—0.207 mi. grading, bridge approaches, Carlisle-Flemingsburg road, S. P. 43 A-G, Ralph E. Mills Co., Frankfort, \$4055 (awarded contract);

Owen—5.800 mi. 18-ft. surfacing, Owenton-Frankfort, P. A. 221 A1-S, Wilmore Paving Co., Middletown, Ohio, \$69,202, using rein. conc. (awarded contract); 9.775 mi. 18-ft. surfacing, Owenton-Frankfort, P. A. 221 A2-S, Wilmore Paving Co., \$122,492, using rein. conc. (awarded contract). 3-10

Maryland—State Roads Comsn., L. H. Steuart, Sec., Baltimore, let contracts for surface treating highways: Districts 1 and 2, 19.31 mi., 42.545 gal., Cooper Corp., Salisbury, 5.43 cents per gal.; Districts 3, 5 and 8, 47.97 mi., 99,033 gal.; Dist. 3A, 7 and 8A, 254.03 mi., 1,246,905 gal., and Dist. 4, 36.17 mi., 81,516 gal., Landsall Co., Hackensack, N. J., 4.89 cents, 4.08 cents, 4.78 cents, respectively, per gal.; Dist. 6, 4.52 mi., 10,749 gal., Southern Asphalt Co., North Blvd. and Ellen Rd., Richmond, Va., 7.21 cents per gal. 3-24

MARYLAND—State Roads Comsn., L. H. Steuart, Sec., Baltimore, opens bids Apr. 12 for 5 roads in following counties:

Baltimore—0.61 mi. conc., elimination of curves on Devils Elbow, National Pike east of Ellicott City, B-240-711, FAP 138-A Reop.;

Carroll—1.20 mi. conc., Marston road, end Cl-74 at Marston toward Ridge road, Cl-93-52;

Howard—1.29 mi. macad., Jonestown-Benton's Corner road, end Ho-106 at Jonestown to Benton's Corner, Montgomery road, Ho-111-34;

Queen Anne's—3.52 mi. conc., Queen Anne-Ruthsburg road, end Q-67 to Ruthsburg;

Worcester—0.88 mi. conc., Philadelphia Ave. in Ocean City, Worcester Ave. to Ninth St., Wo-117-12.

MARYLAND—State Roads Comsn., L. H. Steuart, Sec., Baltimore, has low bids for 4 roads:

Anne Arundel County—1.18 mi. conc., Furnace Creek-Marley Creek road to Marley Creek, 4475 bbl. cement required, Aa-113-74 FAP 229-B, Christhill & Ensey, 1625 Ridgely St., \$18,330;

Baltimore City—0.43 mi. sheet asphalt, Franklinton road, Baltimore St. to Franklin St., 1850 bbl. cement required, Be-115-74, National Paving & Contracting Co., Menlo Dr. & W. Md. R. R., Baltimore, \$22,990;

Carroll County—1.02 mi. conc., Bachman Mills road, near Bachman Mills toward Melrose-Pennsylvania State line road, 3800 bbl. cement required, Cl-103-52, Thomas Bennett & Hunter, Westminster, \$28,696;

St. Mary's County—1.48 mi. gravel, Chaptico-Bueds Creek road toward New Market, Sm-95-84, 80 bbl. cement required, Sm-95-84,

H. W. Hewitt & Son, Valley Lee, Md., \$7705. 3-24

Md., Baltimore—City, Bd. of Awards, Office of City Register, City Hall, opens bids Apr. 13 for 10,000 sq. yd. conc. paving, Contr. 615; George Cobb, Highways Engr.

Md., Baltimore—City, George Cobb, Highways Engr., has low bid from Harry T. Campbell Sons Co., Towson, at \$19,420, for 12,000 sq. yd. cement conc., Contr. 614. 3-24

Md., Towson, Baltimore—Baltimore County Commrs., John R. Haut, Ch. Clk., Court House, has low bid from Frederick Carozza, 2444 N. Charles St., conc. shoulders, 15th Dist.; Jackson P. Grason, Engr., Court House. 3-24

Md., Towson, Baltimore—Baltimore County Commrs., John R. Haut, Ch. Clk., Court House, opens bids Apr. 15 for: Proposal No. 1, furnishing approx. 100,000 gal. tar or asphalt; Proposal No. 2, furnishing approx. 200,000 gal. bitum. patching material, f. o. b. plant; Proposal No. 3, furnishing approx. 76,000 tons stone or slag.

Mississippi—State Highway Comsn., C. M. Williamson, Director, Jackson, completed preliminary work for building Highway 61, Clarksdale to Tunica County line; will connect with Memphis-Gulf Coast Highway; Highway 49, Clarksdale south to Tallahatche County, which will connect with No. 61, has been graded and leveled and is ready for hard surfacing.

Mo., Clayton, St. Louis—St. Louis County Court call for bids at once for roads: Clayton road, widening, 21 to 41 ft., by adding 10 ft. of conc. on each side, 3 mi., \$178,910; 5 mi. 20-ft. asphalt paving, Musick Ave., \$28,180; 6071 ft. 20-ft. asphalt surfacing, Woods Mill road, \$24,310; 20 ft. conc., Hildesheim Ave., \$8620; 14-ft. macad. pavement, West Ave., \$2630; 14-ft. macad. pavement, Glendale Ave., \$9450.

Mo., St. Louis—City, W. W. Horner, Ch. Engr., Paving and Sewers, expend approx. \$2,012,076 for paving about 13 mi. streets in 1932.

Mo., St. Louis—City, Bd. of Public Service, 208 City Hall, opens bids Apr. 19 for alley improvements, Lettings 4396-4404.

North Carolina—State Highway Comsn., Leslie R. Ames, Engr., Raleigh, making surveys on Marion-Shelby Highway to be built in near future.

Oklahoma—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, plans 15 mi. grading, draining, straightening bridges, State Highway 11, east from Medford to Kay-Grant County line.

N. C., Asheville—City widen Patton Ave., Haywood and Government Sts. upon completion of razing of old post office building.

Texas—State Highway Comsn., Gibb Gilchrist, Highway Engr., Austin, cancelled 2 highway projects from April letting: 31 mi. double bitum. surface treatment, Highway 10, Erath County; 11 mi. double bitum. surface treatment, Highway 24, Wise County. 3-24

Tex., Dallas—Dallas County Commrs. Court opens bids Apr. 28 for asphalt surfacing 10.2 mi., Kessler outer boulevard, Fort Worth road to Beckley road, and 1.25 mi. Irving-Fort Worth road, Irving-Fort Worth bridge to old Irving road.

Tex., Lubbock—City, R. F. Houk, Supt., Street Dept., started excavating at west end of unpaved strip on Ave. H north of underpass preparatory to laying caliche base.

Virginia—Forces of State Dept. of Highways, C. S. Mullen, Ch. Engr., Richmond, grading and building up shoulders on Route 22 between Salem and Catawba, preparatory to surface treating in later spring.

Virginia—State Dept. of Highways, C. S. Mullen, Ch. Engr., Richmond, opens bids Apr. 12 for 14,500 sq. yd. conc. patching, Route 12 between Norfolk and the waterworks; Route 10 between Norfolk and Virginia Beach, and Route 500 between Virginia Beach and Fort Story; work must be completed by June 1.

Va., Richmond—City, Col. R. Keith Comp-ton, Dir., Dept. of Public Works, open bids about Apr. 20 for paving, grading, graveling, curb and gutter, sheet asphalt or War-rente bitulithic on 6-in. conc. base and brick on conc. base; est. \$500,000. 3-10

West Virginia—State Road Comsn., Geo. E. White, Sec., Charleston, opens bids Apr. 12 for 0.15 mi. approaches to Guano Creek culvert, grading, gravel surfacing.

Contracts Awarded

D. C., Washington—Dist. Commrs., Office Ch. Clk., Dist Bldg., let contract to Capital Excavating Co., Inc., 41 Franklin St., N. E., for grading Porter St., 14,000 cu. yd. grading. 3-17

KENTUCKY—State Highway Comsn., Frankfort, let contracts for 2 roads in following counties:

Hart—3.412 mi. 20-ft. rein. conc. surfacing, Horse Cave-Jackson Highway, S. P. 11 AS, W. F. Robinson Son & Waitman, Owensboro, \$59,641.

Muhlenberg—4.035 mi. 24 to 30 ft. grading, draining, Greenville-Drakesboro road, S. P. 65-AG, Young & Lyons, Rogersville, Tenn., \$43,089.

Kentucky—See Proposed Construction.

Mo., Clayton, St. Louis—St. Louis County, Roy Jablonsky, Highway Engr., let contracts for roads, streets and bridges, totaling \$432,122: 21,241 ft. conc., Lindbergh Blvd. and 4825 ft., McKnight road, J. Kest & Sons, Edwardsville, Ill., \$129,317 and \$42,350, respectively; 22,466 ft., Lindbergh Blvd., Sandy Hites Co., City Bank Bldg., Kansas City, \$150,288; 1150 ft., Wellston Ave., Skrainka Construction Co., Security Bldg., St. Louis, \$8538; 1408 ft., Wellspring Ave., C. M. Berry Construction Co., 2732 Sutton Ave., Maplewood, \$8753; 4080 ft., Brown road, Israel Bros. Construction Co., 6635 Delmar Blvd., St. Louis, \$30,094; 2 10-ft. conc. slabs on either side street car tracks, 4282 ft., Shady Ave., Webb-Boone Paving Co., 1503 Fyler Ave., St. Louis, \$38,634; 3140 ft. grading, Lasky road, J. C. Kaiser, 2418 N. Wise Ave., Overland, \$5835; conc. sidewalks, Janet Ave. and rein. conc. bridge over Bonhomme Creek, Reiger road, J. Dillon, 2358A Tennessee Ave., St. Louis, \$677 and \$5773, respectively; rein. conc. bridge, Sutter Creek, Old Halls' Ferry road, Industrial Construction Co., Title Guaranty Bldg., St. Louis, \$11,863. 2-18

OKLAHOMA—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, let contracts for 3 roads and 2 bridges in following counties:

Beckham—5.996 mi. grading, draining, State Highway 34, 1.5 mi. east of Elk City north to Beckham-Roger Mills County line, S. 812-A (Roadway), Stephenson Construction Co., Winfield, Kan., \$18,551.

Rogers-Muskogee-Craig-Creek-Tulsa—65,820 l. f. wire cable guard rail, Div. 1, J. C. Holden, Ardmore, \$15,797.

Tillman—2 bridges, State Highway 14, rein. conc. box, and 3 36-ft. I-beam span, F. 268-A (Bridge), Roberts & Fisher, Norman, \$7708; 6,005 mi. grading, draining, State Highway 14, extending from Frederick south, F. 268-A (Roadway), J. E. Smith & Sons, Noble, \$12,357. 3-24

Oklahoma—State Highway Comsn., Sam R. Hawks, Chmn., Oklahoma City, let contract to Ryan-Richards, Oklahoma City, for 806.1 l. f. 10-7-10 conc. pavement, 20 ft. wide, U. S. 77, approx. 3 mi. north of Ardmore extending north; other contracts in letting awarded low bidders. 3-31

TENNESSEE—State Dept. of Highways & Public Works, R. H. Baker, Commr., Nashville, let contracts for road and bridge, totaling \$72,223, in following counties:

Washington—overhead bridge over C. C. & O. railroad, between Jonesboro and Johnson City, Route 34, E. A. Wood & Co., \$14,350.

Hamilton—3.8 mi. paving, Chattanooga-Dayton road, between Daisy and Soddy, Route 29, Municipal Paving & Construction Co., Cotton States Bldg., Nashville, \$57,873. 3-10

Tex., Beaumont—Jefferson County Comms. Court authorized B. B. Johnson, County Judge, to sign 2-year shell contract with W. D. Haden Co., Medical Arts Bldg., Galveston; will supply 50,000 tons at total cost of about \$90,000.

Tex., Dallas—City, Earl Goforth, Sec., let contract to H. L. Cannady, Santa Fe Bldg., for 2-in. asphalt, conc., coarse aggregate paving, Akard St. and Rose St., at \$41,474 and \$54,740, respectively.

Tex., Lubbock—City, M. R. Smith, Jr., City Engr., pave Ave. H with city forces; 1500 ft., 20 ft. wide, caliche base, rock asphalt or penetration topping. 3-24

Tex., Marshall—City drawing plans for paving 29 blocks in various parts of city, costing approx. \$100,000.

Tex., San Antonio—Rodgers & Stewart, 1407 W. Laurel St., have contract for improving Devine road. 3-24

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Ky., Lexington—Bd. of City Comms. authorized construction of storm water sewer

West High St. and Angliana Ave.; Paul Morton, City Engr.

Md., Baltimore—N. Martel, 4400 Vesta Ave., reported, low bidder for sewers Sanitary Contr. 288. 3-24

Mo., St. Louis—Frazier-Davis Construction Co., Arcade Bldg., reported, low bidder at \$30,622 for Manchester Ave. public sewer and at \$32,434 for Rosedale Ave. public sewer. 3-24

Tenn., Nashville—Bd. of Public Works, reported, construct sewer Leonard Ave. and Craighead Ave.

Tex., Beaumont—City Comms. receive bids April 19 for 14,000 ft. of pipe for lateral connection to new Voth Rd. sanitary sewer; R. C. Black, City Engr.

Tex., Ozona—City plans sanitary sewer system; may vote on \$22,000 bonds.

Va., Richmond—See Want Section—Bids Asked.

Telephones and Radio

Ky., Louisville—Courier-Journal and Louisville Times, reported, plan remodeling and installing new equipment in Station WHAS; cost \$120,000.

Maryland—Bd. of Directors of Chesapeake and Potomac Telephone Co. of Baltimore City, Frederick J. Irish, Gen. Mgr., authorized extensions to telephone plant to provide additional facilities for growth in Maryland involving expenditures of \$695,860; appropriation brings total amount for similar additions and betterments to telephone system in Maryland so far this year to \$2,152,526; projects include construction of aerial cable extension in Somerset, Brookmont, Crest View, and Glen Cove residential sections of Montgomery County served by Bradley-Wisconsin central offices and installation of new storage battery in South central office, Baltimore; will place more than 18,000 ft. of aerial cable in Montgomery County; also authorized construction of outside plant, including poles, wire and cable, installation of switchboard equipment, and other apparatus in central offices throughout the state and installing telephones and private branch switchboards on subscribers premises in every section of Maryland. 12-10

Miss., Kosciusko—George O. Sowell, reported, interested in constructing radio broadcasting station; studio at plant of Atlanta Milling Co.; transmitting station 2 mi. from city limits.

Tex., Abilene—Bernard Hanks, reported, applied to Federal Radio Comsn. for permission to erect broadcasting station.

Tex., Lubbock—T. E. Kirksey, Mgr., Station KFYO, reported, installing station, W. Fifth St. near College Ave., equipment being moved from Abilene.

Va., Richmond—Chesapeake & Potomac Telephone Co. of Virginia, Bd. of Directors, reported, authorized \$650,790 expenditures for new plant and equipment to provide additional facilities for telephone growth throughout the state; also authorized an additional \$509,000 for repairs, including removal of poles, wire and cross arms damaged by late storm; total amount appropriated this year \$1,846,749.

Textile Mills

N. C., Burlington—R. H. Whitehead, of Whitehead Hosiery Mills and Mohawk Hosiery Mills, Inc., reported, expending \$50,000 for installation 50 spiral hosiery machines, 25 in each mill.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that Classification.

D. C., Washington—See Want Section—Bids Asked.

Md., Baltimore—Dept. of Public Works, Bureau of Water Supply, receives bids April 13 for valves and hydrants.

Md., Brunswick—J. B. McCrary Co., Citizens & Southern Bank Bldg., Atlanta, Ga., reported, has contract at \$47,000 for constructing 5 miles of pipe lines from Youtree Springs at Brownsville, Washington county to Knoxville, where line will connect with city water system. 10-1

Mo., Steelville—City, J. W. Shikles & Co., New York Life Bldg., Kansas City, Consult.

Engrs., reported, plans installing 75,000-gal. steel tank on 125-ft. tower in connection with water works improvements.

Tenn., Memphis—Bd. of Water Comms. receives bids April 8 for construction of 1 or 2 gravel type wells on grounds of new Sheahan pumping station; plans, etc., from office of superintendent corner of Second and Adams Ave.

Va., Lynchburg—City, reported, let contract to Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa., for 100 tons fab. plate steel for balancing tank. 3-3

Va., Roanoke—Whitman, Requaardt and Smith, Engrs., Baltimore, Trust Bldg., Baltimore, Md., advise in reference to proposed improvements to water supply system of the Roanoke Water Works Co., which will include a filtration plant, low lift pumping station, 6½ miles of 30-in. main and a number of miles of distributing mains, that an investigation by the Pitometer Co., 50 Church St., New York City, disclosed a leakage of over 1,000,000 gal. and this leakage having been stopped the increased supply will not be needed for several years but that the water works company is, however, working on a program to have these improvements made as needed and total extension program will probably be carried on over a period of 5 to 6 years. 3-24

W. Va., Charleston—West Virginia Water Service Co., C. van den Berg, Pres., reported, granted federal permit to construct water intake and pumping station on western bank of Elk River about 5 miles from river's mouth; intake plant will be of conc. and extend to low water elevation and pumping station will be 60 ft. above low water elevation; West Virginia Water Service Co. is controlled by Federal Water Service Corp., 27 William St., New York; Trojan Engineering Corp., 40 Exchange Place, New York City, will be in charge of work. 9-17

Woodworking Plants

Okla., Tulsa—Tyler Cabinet & Mill Works, capital \$15,000, incorporated; Dora Tyler, 810 E. Fifth Pl.

FIRE DAMAGE

Ala., Prichard—Plant of Burton Box Co.; loss \$25,000.

Ark., Camden—Fuel room of Camden Furniture Co.

Ark., Cotton Plant—A. C. Carter's Store.

Ark., Gravette—McClure Canning & Cheese Plant.

Ark., Hampton—C. R. Dunn, drug store and building, loss \$25,000; Mrs. E. C. Dunn, store building, loss \$15,000; Johnson Brothers, loss \$5,000; C. R. Dunn, Fair Store, loss \$4,000.

Fla., Largo—First Christian Church and parsonage.

Ga., Atlanta—O. A. Smith Co., warehouse, 555 Western Ave., N. W.

Ga., St. Marys—S. C. Townsend, residence.

Ky., Adolphus—Spear Bros., general store.

Ky., Catlettsburg—Catlettsburg Baptist Church, Buron and Garper Hardware Co., store and Sparks Clothing Store; loss \$75,000.

Ky., Frankfort—Drying house of George T. Stag Distillery.

Ky., Henderson—First Baptist Church; loss \$15,000.

La., Jena—Wright Building, loss \$65,000.

La., Natchitoches—Hedges Building; loss \$15,000.

Md., Baltimore—Awraich & Perl delicatessen store, Charles and Redwood Sts.

Md., Elkridge—Residence, Charles A. Geatty, Lawyer's Hill; loss \$60,000.

Md., Wenona—Plant of Hoffman Seafood Co.

Miss., Ellisville—Jones County Courthouse.

Miss., Glendora—Albert Moyer Store building; loss \$20,000.

Miss., Pass Christian—Pass Christian Tarpon Club, Goose Point, Cat Island; loss \$30,000.

Mo., Bonne Terre—A. Gordon & Co., store; loss \$15,000.

Mo., Caruthersville—Storage unit of Southeast Missouri Compress Co.; loss \$200,000.

Mo., Kansas City—Benson Brass and Chandler Works, 1417 Agnes Ave.; loss \$30,000.

N. C., Durham—Pritchard and Bright Clothing Store; loss \$35,000.

N. C. Dunn—Furniture plant of Eagle Furniture Co., Inc.; loss \$30,000.

N. C. Gumberry—Lumber mill owned by T. J. Shepherd; loss \$15,000.

N. C. Phoenix—Residence, Mrs. J. D. Butler, Elm Grove plantation, near Phoenix.

N. C. Washington—Dock, Atlantite Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, N. C.; loss \$15,000.

Okla., Shawnee—Famous Department Store, Harry Rosen, Prop.; loss \$10,000.

S. C. Gaffney—Carroll & Byers, Inc., store building; loss \$25,000.

Tenn., Memphis—X-Itte manufacturing plant of E. L. Bruce Co., Thomas St. and Wolf River; loss \$150,000.

Tex., Floydada—Lakeview School; loss \$9,000.

Tex., Grosse Tete—Store, Joseph Scardina.

Tex., Houston—Plant of Parker Bedding Co., 1112 N. Main St.

Va., Berryville—Creamery building of C. L. Robinson Ice and Cold Storage Co. of Winchester.

Va., Hopewell—Pumphouse of Hummel-Ross Fibre Co.

Va., Rocky Mount—Finishing, storage and shipping department of Bald Knob Furniture Co.; loss \$200,000.

W. Va., Nitro—Plant of Seydel Chemical Co.; main office, 135 Halladay St., Jersey City, N. J.

D. C., Algernon Blair Co., Montgomery, Ala.; Earl E. Garber Co., 203 W. Fourth St., Bethlehem, Pa.; Hartenstein-Zane Co., 225 Broadway, New York; G. P. Donnellan, Walton Bldg., Atlanta, Ga.; Universal Construction Co., Medical Arts Bldg., Ft. Wayne, Ind.; Theriault Construction Co., 537 E. Johnson St., Philadelphia, Pa.; Roach Le Couter Co., First National Bank Bldg., St. Louis, Mo.

Ky., Louisville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 18, cafeteria equipment, U. S. post office building. Following estimating: J. Morse, 78 19th St., Brooklyn, N. Y.; S. Blackman, 928 Fifth St., N. W., Washington, D. C.

La., Baton Rouge—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 12, elevators, U. S. post office. Following estimating: Warner Elevator Mfg. Co., Shepard Elevator Co., 2413 Colerain Ave., both Cincinnati, Ohio; Kimball Bros. Co., Ninth St. and 11th Ave., Council Bluffs, Iowa.

La., Barksdale Field, Shreveport—U. S. Army, Capt. Geo. E. Lamb, Constr. Quartermaster, opens bids April 20 construction airport barracks building, cost \$125,000; rein. conc. brick, tile and stucco. Following estimating: K. C. Wilson, Slattery Bldg., Ashton Glassell Co., Inc., 260 Cadillac St., both Shreveport, La.; L. C. Maples, Box A, Bossier City; W. C. Salley, Monroe; L. W. Wentzel, Sherman, Tex.; Anzalone Construction & Supply Co., Independence; Dye & Mullings, Columbia, Miss.; H. W. Underhill Construction Co., Construction Bldg., Dallas, Tex.; Geo. E. Wieland, Richard A. Porter, Herbert St., both San Antonio, Tex.; United Construction Co., Washington, D. C.

Md., Annapolis—Laurence Hall Fowler, 347 N. Charles St., Baltimore, has been selected as archt. for Maryland Memorial Hall of Records to be erected on campus of St. John's College.

Miss., Meridian—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 25 furnishing labor and materials and constructing U. S. post office, and court house building (except elevators, dumbwaiters and lighting fixtures). Krouse and Fort, M. & W. Bldg., Meridian, Archt. 5-21-32

Okla., Stringtown—State Board of Affairs, Oklahoma City, W. C. Hughes, Chmn., reported, plans kitchen and refrigeration building, laundry building, cell block building, power house and temporary barracks and mess hall; Layton, Hicks & Forsyth, Braniff Bldg., Oklahoma City, Archts.; Stringtown Lumber Co. has contract for lumber for mess hall.

Okla., Stillwater—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, reported, plans U. S. post office building, cost \$135,000; brick, stone and concrete construction; R. W. Sawh, Enid, Archt.

Tenn., Chattanooga—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 14, elevators, U. S. post office. Following estimating: S. Heller Elevator Co., Milwaukee, Wis.; Gurney Elevator Co., Southern Bldg., Washington, and 109 W. 64th St., New York; Elevator Lock Co., 119 N. Washington St., Peoria, Ill.; Houghton Elevator & Machine Co., Vermont Bldg.; A. B. See Elevator Co., 1343 H St., N. W.; Otis Elevator Co., 810 18th St., N. W., all Washington, D. C.; Westinghouse Electric Elevator Co., 30th and Walnut Sts., Atlantic Elevator Co., Erie Ave. and D St., all Philadelphia, Pa.; American Elevator & Machy. Co., 500 E. Main St., Louisville, Ky.; General Electric Co., Schenectady, N. Y.; Wm. A. Miller Elevator & Machy. Co., 920 N. Main St., St. Louis, Mo.; Warner Elevator Mfg. Co., Cincinnati, Ohio.

Tenn., Knoxville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 26, U. S. post office building. Following estimating: Deakman-Wells Co., 921 Bergen St., Jersey City, N. J.; N. P. Severin Co., 222 W. Adams St., Chicago, Ill.; Weaver & McGill, 517½ West Church Ave., Knoxville, Tenn.; J. W. A. Elliott Co., Lumber Exchange, Minneapolis, Minn.; Jens J. Juul, Hutchinson, Minn.; Gust Kleinschmidt & Son, Mankato, Minn.; Worsham Bros., Medical Arts Bldg.; J. M. Dunn & Son, 245 Broad St., all Knoxville. Baumann & Baumann, Archts., 813½ Market St., Knoxville.

Tex., Houston—Co. F., 111th Engineers, Texas National Guard, plans erection armory, Capt. F. G. Coghill, Comm.

Va., Lynchburg—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens supplemental bids, from original bidders only, April 11, construction U. S. post office.

Va., Norfolk—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 11 foundation work U. S. post office. Following estimating: Saunders-Copper Co., Virginia Engineering Co., First Na-

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

La., Shreveport—Salvation Army, Geo. M. Freeman, member Bldg. Comm., opens bids April 8, construction 3-story brick and fireproof Salvation Army building; cost \$24,000. Following estimating: Ward Beloitte, 3244 Southern Ave.; K. C. Wilson, Slattery Bldg.; W. A. McMichael, 835 Kirby Pl.; Welch & McLain; Strubbe McConnell, 3415 Velna St.; R. J. Cavender; F. D. Welch, and Miller & Gibson, 120 E. Lister St.

Md., Baltimore—Junior Order United American Mechanics, William W. Linzey, Penhurst Ave., probably have plans ready for bids about May 1 for 1-story lodge and store building, brick, 63x61; Wm. W. Working, 4105 Penhurst Ave.

Bank and Office

N. C., Lincolnton—Melville Manufacturing Co., W. W. Glenn, Sec., advises will rebuild burned office building.

Va., Norfolk—Professional Arts Building Corp. has low bid from Nichols & Lindemann, Seaboard Bank Bldg., Norfolk, \$260,769 for Professional Arts Bldg.; A. Byron Williams & Douglas D. Ellington, Asso. Archts., Room 2-2 C. C. Bank Bldg., Newport News, Va.

City and County

La., New Orleans—City Purchasing Agent, Room 24, City Hall Bldg., opens bids April 19 for construction new buildings at Tremé Market on Orleans St. and St. Roch Market, on St. Roch and St. Claude Aves.; Sam Stone, Jr., & Co., Archts., Masonic Temple Bldg.

Mo., St. Louis—Board of Public Service, E. R. Kinsey, Pres., advises, bids on Municipal Auditorium will be advertised April 5; will probably open bids about middle of May; \$3,000,000 approximate cost. Plans by Plaza Commission, Inc.

Mo., St. Louis—Board of Public Service, E. R. Kinsey, Pres., reported, has low bid from The Excavation Co., 705 Olive St., for excavating for the Municipal Auditorium.

Tex., Longview—Gregg County Comms. Court, Judge W. R. Hughes, County Judge, rejected bids for court house and jail building opened March 15; will call new bids Apr. 7; Voelcker & Dixon, Inc., Archts., Perkins-Snyder Bldg., Wichita Falls.

Va., Richmond—City Finance Comsn., reported, plans improving First Market, estimated cost \$30,000.

Dwellings

Ala., Collinsville—Dr. Marsh plans building residence, on site of Old Baptist Church.

D. C., Washington—Max Sugar, 1905 Keyway St., N. W., has permit two 2-story, brick and tile dwellings, 5523 and 5527 First St., N. W., cost \$15,000.

Md., Baltimore—Earl H. Berry and others, reported, plan building five 2-story brick dwellings 4106-14 Harris Ave.; estimated cost \$12,000.

Miss., Macon—W. F. Conner plans erection brick veneer residence on Cline place on Jefferson St.

Tex., Dallas—Dines Building Co., 6640 Lakewood Blvd., has permit 7-room brick veneer dwelling, cost \$10,000.

Government and State

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids May 6, construction, completion

of Department of Agriculture Extensible building, Washington (except elevators and work under contracts Nos. 1 and 2).

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 8, U. S. post office. Following estimating: English Construction Co., 1315 H St., N. W.; Geo. E. Wyne, 2539 Pennsylvania Ave., N. W., both Washington; N. P. Severin Co., 222 W. Adams St., Chicago, Ill.; Bereham & McFarland, 136 North St., Rochester, N. Y.; Apt Engineering & Contracting Co., 395 Kent Ave., Brooklyn, N. Y.; Thomas G. Sperling & Co., 103 Park Ave., New York.

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids May 18, construction U. S. Department of Labor Building, Interstate Commerce Comsn. Bldg. and connecting wing, Labor-Interstate Commerce Commn. Buildings. (Except elevators, hook truck lift and electric dumbwaiters.) Arthur Brown, Jr., San Francisco, Cal.

Fla., Fort Myers—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 13, U. S. P. O. building. Following estimating: United Construction Co., Munsey Bldg., Washington, D. C.; Worsham Bros., Medical Arts Bldg., Knoxville, Tenn.; Prescott-White Corp., 118 E. 28th St., New York; Algernon Blair, Montgomery, Ala.; Wm. S. Green Co., Box 689, Miami Beach, Fla.; O. P. Woodcock Co., Duval Bldg.; Geo. D. Auchter Co., 600 E. Fourth St., both Jacksonville, Fla.; Grahm Construction Co., Red Rock Bldg., Smith-Pew Construction Co., 435 Irwin St., all Atlanta, Ga.; Rosen & Fischel, 11 S. La Salle St., Chicago, Ill.; Ft. Myers Construction Co.; C. Franklin Wheeler & Co., both Fort Myers, Fla.; D. T. Underwood, Lincoln Life Bldg., Birmingham, Ala.; M. R. Harrison Construction Co., 500 N. E. 45th St.; Fred Howland, 1600 N. W. 14th St., both Miami, Fla.; Jas. I. Barnes, Box 312, Springfield, Ohio; Theriault Contracting Co., 534 E. Johnson St., Philadelphia, Pa.; Paul Smith Construction Co., Haines City, Fla.; Murphey Pound, Box 422, Columbus, Ga.; Newman Bros. Construction Co., Norwood, Ohio.

Fla., Fort Myers—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 13, elevators, U. S. post office. Following estimating: Westbrook Elevator Mfg. Co., Danville, Va.; Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, Ohio.

Fla., Haines City—State Quartermaster, St. Augustine, Fla., opens bids April 11, construction armory, Co. F. 106th Engineers, Florida National Guard.

Fla., Miami—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 14, \$65,000 U. S. Quarantine Station, Fisher's Island. Following estimating: Berry & Son, Inc., 1327 20th St.; W. S. Green Co., Inc., 1237 20th St.; O'Neill-Orr Construction Co., 604 Fifth St.; Tropical Homes, Inc., 1108 Lincoln Rd., all Miami Beach; Gunn & Goll, Inc., 69 N.E. 36th St.; St. John Construction Co., 629 N. W.; M. R. Harrison Construction Co., Inc., 500 N. E. 45th St.; J. Y. Gooch & Co., Bedford Bldg.; R. M. Williams, 1708 N. W. Sixth St.; Hintz Construction Co.; Fred Howland, 1600 N. W. 14th St.; G. Tenry Hunt; E. P. Friis, 101 N. E. 87th St.; Becker Construction Co.; R. G. Witter Co., 1745 W. Sixth St.; C. B. Colby, 3081 Day Ave.; Shore Line Builders, Inc., 306 S. W. N. River Dr.; M. H. Connell, 1341 Alhambra Circle, Coral Gables, all Miami; North American Construction Co.; O. P. Woodcock Co., Duval Bldg., both Jacksonville; Smythe & Co., 1416 F St.; Dietrich Bros., Metropolitan Bldg., both Washington,

tional Bank Bldg., both Newport News, Va.; Consolidated Engineering Co., St. Paul and Franklin Sts.; Engineering Contracting Corp., 18 E. Franklin St.; Merritt-Chapman & Scott Corp., Fidelity Bldg., Sanford & Brooks Co., South and Waters Sts., all Baltimore, Md.; Raymond Concrete Pile Co., American Security Bldg., Washington; W. W. Nixon, care McArthur Concrete Pile Corp., 19 W. 44th St.; Pierce Steel Pile Corp., 500 5th Ave.; Frederick Snare Corp., 114 Liberty St., all New York; Carpenter & Petrie, Citizens Bank Bldg.; Brooke Construction Co., Seaboard Bank Bldg.; W. T. Gregory, Flat Iron Bldg., all Norfolk; West Englewood Construction & Supply Co., 6239 S. Ashland Ave., B-W Construction Co., 720 N. Wabash Ave., both Chicago, Ill.; Earl E. Garber & Co., 203 W. 4th St., Bethlehem, Pa.; Northeastern Construction Co., Nissen Bldg., Winston-Salem, N. C. 3-24

Hospitals, Sanitoriums, Etc.

Ky., Louisville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 12, elevators, Marine Hospital. Following estimating: Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave.; Shepard Elevator Co., 2413 Colerain Ave., both Cincinnati, Ohio; Abell Elevator Co., 114 N. Eighth St., Louisville; Capital Lift & Mfg. Co., 424 W. Town, Columbus, Ohio; Kimball Bros. Co., Ninth St. and 11th Ave., Council Bluffs, Iowa. 3-24

Ky., Louisville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 12, Marine hospital building. Following additional contractors estimating: C. A. Klooster, 111 Washington St., Chicago, Ill.; Phelps-Drake Co., care Cold Spring Granite Co., Cold Spring, Minn.; Thos. J. Murphy & Bro., Cook Bldg., Bowling Green, Ky.; H. G. Whittenberg, 8th and Denmark Sts., Louisville; Kopman-Alport Co., 1000 Pine St., St. Louis, Mo.; P. W. Johnson, Scioto Trail, Portsmouth, Ohio; John A. Keller & Son, 818 DeBois St., Vincennes, Ind.; Spotswood & Sons, 1617 Corsby St., Rockford, Ill.; Vincent Chaibal & Co., 4360 Washington St., Gary, Ind. 3-31

La., New Orleans—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 8, Marine Hospital. Following additional contractors estimating: Gervais F. Favrot, Balter Bldg., T. A. Pittman, Canal Bank Bldg., Lionel F. Favret, Louisiana Bldg., Caldwell Bros., 816 Howard Ave., all New Orleans; Rosen & Fischel, 11 S. LaSalle St., James McHugh Sons, 840 W. 70th St., both Chicago, Ill.; Geo. Griffiths Construction Co., 705 Olive St., St. Louis, Mo.; Theriault Contracting Co., 534 E. Johnson St., Philadelphia, Pa.; Algernon Blair, First Natl. Bank Bldg., Montgomery, Ala.; Rheiner & Kroeger, Box 1451, San Antonio, Tex.; Samford Bros., 301 Washington Ave., Montgomery, Ala. 3-31

Md., Baltimore—Additional prospective bidders on Marine Hospital, bids due April 15 by Treasury Dept., Washington: Phelps-Drake Co., care Spring Granite Co., Cold Spring, Minn.; Conneen Construction Co., 770 Schuykill Ave., Wark Co., 1608 Walnut St.; Arch-Hauser Co., Elverson Bldg.; Stoillet & Tilletson, 17th and Arch Sts.; Irwin & Leighton, 1505 Race St.; Cramp & Co., Denckla Bldg., all Philadelphia, Pa.; Kenny Bros., 302 Dyckman St.; P. J. Carlin Construction Co., 405 Lexington Ave., both New York; North-Eastern Construction Co., 6 W. Madison St.; Chas. L. Stockhausen Co., National Marine Bank Bldg.; M. A. Long Co., 10 W. Chase St.; Mullan Contracting Co., 3945 Greenmount Ave.; Thos. Hicks & Sons, 106 W. Madison St., all Baltimore; Coath & Goss, 1109 S. State St.; W. E. O'Neil Construction Co., 308 W. Washington St., both Chicago, Ill.; Nicola Bldg. Co., Penn Ave., Pittsburgh, Pa.; Murch Bros. Construction Co., National Press Bldg., Washington, D. C.

Prospective bidders on elevators—bids open April 15: Warner Elevator Mfg. Co., 2613-31 Spring Grove Ave., Cincinnati, O.; S. Heller Elevator Co., Milwaukee, Wis.; Gurney Elevator Co., Southern Bldg., Washington, and 109 W. 64th St., New York; Elevator Locks Co., 119 N. Washington St., Peoria, Ill.; Haughton Elevator & Machine Co., Vermont Bldg.; A. B. See Elevator Co., Inc., 1343 H St., N. W.; Otis Elevator Co., 810 18th St., N. W., all Washington, D. C.; Westinghouse Electric Elevator Co., 30th and Walnut Sts.; Atlantic Elevator Co., Erie Ave. and D St., both Philadelphia, Pa.; General Electric Co., Schenectady, N. Y.; American Elevator & Machinery Co., 500 E. Main St., Louisville, Ky.; Wm. A. Miller Elevator & Machinery Co., 920 N. Main St., St. Louis, Mo. 3-31

Md., Crownsville—Crownsville State Hospital, Dr. R. P. Winterode, Supt., Dr. Geo. P. Preston, Chmn., State Lunacy Comm., 330 N. Charles St., Baltimore, opens bids April 13 construction ward bldg., addition to Hugh M. Young psychopathic ward, cost \$200,000. Following estimating: Charles L.

Stockhausen, 33 S. Gay St.; Davis Construction Co., 9 W. Chase St.; Frairie Bros., 19 W. Franklin St.; M. A. Long Co., 10 W. Chase St.; Consolidated Engineering Co., 20 E. Franklin St.; Tase-Norris Co., 903 Cathedral St.; Laechi Construction Co., 1818 Munsey Bldg.; W. E. Bickerton Construction Co., 515 Cathedral St.; Century Construction Co., 217 East St.; Mullan Contracting Co., 3945 Greenmount Ave.; L. I. Chambers, 36th and Roland Ave.; Price Construction Co., Md. Trust Bldg.; C. W. Schmidt, Hearst Tower Bldg.; J. Henry Miller, 405 W. Franklin St.; North Eastern Construction Co., 6 W. Madison St., all Baltimore; G. Ernest Nichols, Laurel, Md.; Bean Bros.; J. J. Stehle, Munroes Court; Samuel B. Dove; Elmer Parkinson, Carlson & Carlson, all Annapolis, Md.; Joseph Evans Sperry, Calvert Bldg., Baltimore, Archt.; Herman Doelman, Baltimore Trust Bldg., Baltimore, Struc. Engr.; James Posey, Baltimore Trust Bldg., Baltimore, Mech. Engr. 1-14

Md., Perry Point—Prospective estimators on Nurses and attendants quarters, Veterans Administration Hospital, bids open April 19, Veterans Administration, Room 764, Arlington Bldg., Washington, D. C.: **General Contract**—Haverstick-Borthwick Co., 1505 Race St.; Ralph S. Hersog, 10 S. 18th St.; Hood & Cross, 1535 Chestnut St.; Geo. H. Evans Co., 1124 Fairmount Ave.; Wm. Linker Co., 735 Cherry St.; Conneen Construction Co., 770 Schuykill Ave.; Wm. S. Gore, 1449 N. 62nd St., all Philadelphia, Pa.; Ralph W. Simmers, 4547 Harford Rd., Consolidated Engineering Co., St. Paul and Franklin Sts., Laechi Construction Co., Mun-

Contractors, sub-contractors and suppliers of materials are urged to join in helping to stabilize the construction industry. Use the following label on all bids—It has the approval of responsible concerns:

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sey Bldg., Century Construction Co., Hearst Tower Bldg., North-Eastern Construction Co., 6 W. Madison St., P. C. Street Engineering Co., 404 St. Paul St., J. L. Robinson Construction Co., 1100 Pierce St., Price Construction Co., Maryland Trust Bldg., Cogswell Construction Co., 406 Park Ave., all Baltimore, Md.; Henry B. Ryan Co., 500 N. Dearborn St.; West Englewood Construction & Supply Co., 6239 S. Ashland Ave., both Chicago, Ill.; English Bros., Lincoln Bldg., Champaign, Ill.; Murch Bros. Construction Co., Railway Exchange Bldg., St. Louis, Mo.; Virginia Engineering Co., First National Bk. Bldg., Newport News, Va.; W. P. Thurston Co., Inc., 301 S. Fourth St.; Lee Paschall, American National Bank Bldg., both Richmond, Va.; Minter Homes Corp., Dundalk, Md.; Camden Construction Co., 515 Laurence St., Camden, N. J.; Morley Bros. Construction Co., 1643 Bellevue St., Kansas City, Mo.; Blackford Co., 3606 11th St., N. W.; Industrial Engineering and Construction Co., 1909 Minnesota Ave., S. E.; B. W. Construction Co., National Press Bldg., both Washington, D. C.; Supreme Construction Co., 122 E. 42nd St.; Arthur L. Kraft, 1560 Broadway, both New York; Goode Construction Co., Box 1266, Charlotte, N. C.

Plumbing and Heating: H. C. Korloth Plumbing and Heating Co., 414 E. Lamar St., Sherman, Tex.; Pocomoke Foundry and Machinery Works, Pocomoke City, Md.; Riggs, Distler & Co., 216 N. Calvert St.; Modern Engineering Co., 105 E. Pleasant St., all Baltimore, Md.; Crescent Plumbing & Heating Co., 821 E. Jefferson St., Louisville, Ky.; Egan & Fullmer, Harrison Bldg., Philadelphia, Pa.; Ed. L. Stock, 1716 H St., N. W., Washington, D. C.

Electric: Burke Electric Co., 3957 Forest Park Bldg.; Fischbach & Moore, 1616 Walnut St., Philadelphia, Pa.

Elevator: Haughton Elevator & Machin-

ery Co., 679 Spencer St., Toledo, Ohio; Gurney Elevator Co., Southern Bldg., Washington, D. C.

Tenn., Memphis—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 18, elevators, Marine Hospital. Following estimating: S. Heller Elevator Co., Milwaukee, Wis.; Gurney Elevator Co., Southern Bldg., Washington, and 109 W. 64th St., New York; Elevator Locks Co., 119 N. Washington, Peoria, Ill.; Haughton Elevator & Machine Co., Vermont Bldg.; A. B. See Elevator Co., Inc., 1343 H St., N. W.; all Washington, D. C.; Westinghouse Electric Elevator Co., 30th and Walnut Sts.; Atlantic Elevator Co., Erie Ave. and D St., both Philadelphia, Pa.; General Electric Co., Schenectady, N. Y.; American Elevator & Machinery Co., 500 E. Main St., Louisville, Ky.; Wm. A. Miller Elevator & Machinery Co., 920 N. Main St., St. Louis, Mo. 3-31

Tenn., Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, opens bids April 11 Marine hospital building. Following additional contractors estimating: H. J. Gilbertson Construction Co., Farnsworth Bldg.; E. O. Korman Construction Co., Porter Bldg.; H. E. Pullen & Co., Cotton Exch. Bldg.; Gauger Construction Co., Fidelity Bank Bldg.; Fred J. Sexton Co., 191 Court Ave., B. E. Buffalo & Co., 658 East St., all Memphis; C. A. Klooster, 111 W. Washington St., Rosen & Fischel, 11 S. La Salle St., Geo. Thomson & Son Co., 30 N. La Salle St., Blauner Construction Co., 189 W. Madison St., Duval Construction Co., 180 W. Washington St., Jas. McHugh's Sons, 840 70th St., all Chicago, Ill.; Hiram Lloyd Building & Construction Co., Syndicate Trust Bldg., Kopman-Alport Co., 1000 Pine St., Geo. Griffiths Construction Co., 705 Olive St., McCarthy Bros. Construction Co., Roosevelt Bldg., all St. Louis, Mo.; Peerless Contracting Co., 2182 Washington St., Peerless Contracting Corp., 2182 Washington, both Gary, Ind.; Samford Bros., 310 Washington, Montgomery, Ala.; Thierault Contracting Co., 534 E. Johnson St., Philadelphia, Pa. 3-31

Hotels and Apartments

Fla., Miami Beach—J. Yalles, reported, plans construction 20-unit apartment house, Euclid Ave., between 8th and 9th St., cost \$50,000; B. Kingston Hall, 133th St., Miami Beach.

Fla., Miami Beach—J. Gescheldt, 740 Washington Ave., Real Estate Dealer, reported, announces plans are under way for construction of 250 room hotel and 20 unit apartment building; project would be undertaken by group of New Jersey investors.

Miscellaneous

Fla., Palm Beach—Our Ocean Navigation Co., E. M. Baynes, V-Pres., reported, plans \$75,000 solarium building.

Tenn., Memphis—Bethel T. Hunt, of Bichignani & Hunt, Realtors, Bank of Commerce Bldg., purchased 3-story brick building 26 S. Main St.; plans remodeling; Harker & Cairns, Archts., 123 S. Court St.

Va., McKeeney—McKeeney Home Demonstration Club, Mrs. Dean, reported, interested in building community house.

Va., Richmond—Dr. Charles W. Sheerin, Chmn., Negro Welfare Council of the Council of Social Agencies, announced campaign will be started to raise \$15,000 for erection of Negro gymnasium at 112 W. Charity St.

Railways Stations, Sheds, Etc.

Ala., Birmingham—Louisville and Nashville R. R. Co., W. H. Courtney, Ch. Engr., Louisville, Ky., will let contract April 16 for work on station; cost \$85,000.

Schools

Fla., Plant City—Hillsborough County School Board, Tampa, reported, plans erection of Junior High School.

Ga., Macon—Bibb County, Board of Education, Dr. Morgan, Chmn., opens bids April 11, Grade School No. 4, cost \$50,000. Following estimating: Capitol Construction Co., Standard Bldg.; Norwood Griffin, both Atlanta, Ga.; R. H. Smalling & Sons, Bibb Bldg.; W. A. Stidwell & Son; M. E. Shaw, 810 Mulberry St.; W. D. Griffin, 210 Winship St.; Walter Thames; A. R. Briggs, Route 3, all Macon, Ga.; Higginson Construction Co., Chattanooga, Tenn.; Angle-Blackford Co., Macon, and Greensboro, N. C.; Donald McIver, Campbell Bldg., Atlanta. 3-31

Ga., Milledgeville—W. Elliott Dunwoody, Jr., 460 Broadway, Macon, reported, selected as architect for library building at Georgia State College for Women, Dr. J. L. Beeson, Pres.; cost \$50,000. 2-25

La., Killam—Livingston Parish School Bd., Springville, opens bids April 24, additions and repairs to school building. Following estimating: Wm. Wallace, ins. Marquette Bldg., New Orleans, and Pere Marquette Construction & Supply Co., Independence; Wm. R. Burks, Archt., Balter Bldg. (Lately noted receives bids April 4.) 3-24

La., Maurepas—Livingston Parish School Bd., Springville, opens bids April 21, alterations, additions and repairs to high school building; approximate cost \$25,000; Wm. R. Burks, Balter Bldg., New Orleans, Archt. (Lately noted receives bids April 4.) 3-24

Md., Baltimore—Loyola High School, 700 N. Calvert St., plans high school, Boyce Ave.; John A. Ahlers, 529 N. Charles St., Archt.; Herman F. Doelman, Baltimore Trust Bldg., Structural Engr. 3-24

Miss., Leesville—Vernon Parish School Bd., opens bids April 21, 2-story, rein. conc. brick and stone trim high school building; Jones, Roessle, Olschner & Werner, Archts., Ardiss Bldg., Shreveport.

Mo., Diamond—School Commrs., reported, plan grade and high school, cost \$35,000.

Mo., St. James—School Bd., reported, plans addition to high school, cost \$20,000.

Md., Bel Air—Board of School Commrs., S. Milton Wright, has low bid from H. T. Seymour, Easton, Md., for 10 room addition to high school at Highland; J. B. Hamme, Archt., York, Pa.

Mo., Thayer—School Commrs., reported, plan high school building, cost \$40,000.

Mo., Weaubleau—School Commrs., reported, plan grade and high school building, cost \$24,000.

Okla., Oklahoma City—Bd. of Education, T. J. Stearley, Clk., reported, plans Negro High School Building, cost \$300,000; 2 stories and basement, brick.

Okla., Oklahoma City—School Commrs., plan gymnasium building, Valley Brook Dist. No. 60 school; Butler Co., Archts.

Tex., Austin—Board of Regents, University of Texas, opens bids April 23 for tunnel for steam and electric distribution (including electrical wiring), also piping for tunnel; approximate cost \$60,000; Robert Leon White, Supvg. Archt., University of Texas.

Tex., Rosenberg—Rosenberg Independent School Dist. probably vote soon on \$25,000 building bonds.

Tex., San Antonio—City, Board of Education, J. E. King, Pres., plans building new South Side Senior School; plans have been completed by Herbert S. Greene, Morris Plan Bank Bldg.; Ralph H. Camenson, Majestic Bldg., and George Willis, Builders Exchange Bldg., associate archts.; rein. concrete construction, faced with brick and trimmed in stone; J. W. Beretta Engineers, Inc., Asso. Struc. Engrs., 1205 Natl. Bank Bldg.; L. D. Royer, Mech. Engr., Smith-Young Tower; Phelps & DeWees, School Archts., Gunter Bldg. 2-11

Stores

Fla., Daytona Beach—S. H. Kress & Co., 114 5th Ave., New York, opens bids April 11, 3 1/2 story store building, 55x130; St. John Construction Co., 629 N. W. 7th St., Miami, bidding on project; Edw. F. Sibbert, Archt.

Fla., Sarasota—A. E. Slauson, 57 W. Colonial Drive, Orlando, estimating on store for Kress Stores, Inc., 114 5th Ave., New York. (Lately incorrectly noted as A. E. Flaussan, Orlando.) 3-24

La., Jena—J. B. Wright plans rebuilding Wright building recently destroyed by fire at loss of \$65,000.

Miss., Clarksdale—King & Anderson plans repairing fire damage to store building, new roof; cost \$10,000.

S. C., Georgetown—Fogel's Department Store, Harry Fogel, Prop., plans rebuilding store recently destroyed by fire.

Tex., Gladwater—J. I. Morgan will erect 2-story, brick building on Pacific Ave., 110x 115.

Theatres

Ga., Atlanta—Capitol Theater, 202 Pinetree St., N. W., reported, plans expending \$25,000 installing new equipment.

N. C., North Wilkesboro—Leonard Vyne plans erecting theatre building on lot 50x125.

Tex., Laredo—Wm. Epstein, reported, plans building theatre; 1 1/2-story, 64x87, Spanish type, brick, structural clay tile and rein. conc.; approximate cost \$20,000; plans to be ready about April 20; Guy M. Trout, Box 684, Laredo, Archt.

Warehouses

W. Va., Fairmount—Jones Fur Service, Gaston Ave., reported, plans enlarging plant and warehouse.

Tex., Legion—Veterans Bureau, Arlington Bldg., Washington, let contract garage, C. S. Lamble & Co., Amarillo, \$15,459.

Hotels and Apartments

La., New Orleans—Gervais F. Favrot, Balter Bldg., has contract for remodeling Louisiana Restaurant and Hotel building, Iberville near Royal Sts.; Omar H. Cheer, Pres., A. M. & J. Solari, Ltd., owner.

Miscellaneous

Md., Baltimore—The Bible House let contract to M. A. Long Co., 10 W. Chase St., alterations to building, 9 E. Franklin St.; William Gordon Beecher, Archt., 9 E. Pleasant St.

Schools

Md., Baltimore—George Peterson, Inc., Marine National Bank Bldg., has sub-contract for concrete work for school building for Sacred Heart R. C. Church, 600 S. Conkling St.; E. Eyring & Sons, Gen. Contr.; John P. Eyring, Archt., both 808 S. Conkling St. 3-24

Md., Salisbury—Salisbury Normal School let following sub-contracts for school building: Brick work, Mowbray & Tyler, Cambridge, elevator, Otis Elevator Co., 120 S. Paca St., Baltimore, painting, Thos. Arnold Painting Co., Red Lion, Pa.; Smith & May, Baltimore Trust Bldg., Baltimore, Archt.; L. L. Chambers, 36th St. and Roland Ave., Baltimore, Contr. 3-24

N. C., Fayetteville—State Normal School, Bldg. Comm., let contract for construction dormitory and training school building, Beaman-Coleman Construction Co., Capital Club Bldg., Raleigh, \$96,112; Waldrop Heating & Plumbing Co., Rock Hill, S. C., has heating contract, \$8990; plumbing contract to A. E. Cumber, Wilmington, \$8,600; Geo. R. Berryman, Archt., 102 W. Hargett St., Raleigh. 3-24

Okla., Sapulpa—W. P. Butterworth, Mounds, has contract for school for Dist. No. 45; Paul Zimmerman, Cl. Board of Education.

Tex., Austin—Board of Regents, University of Texas, reported, let contract to Hill Brothers, Waco, \$19,316 for plumbing in men's dormitory building. 3-31

Stores

Ark., Pine Bluff—E. C. Royce Construction Co. has contract for remodeling Henry Marx Bldg., Main St., for W. E. Grant Co. store; Hanker and Cairns, Archts., Memphis.

D. C., Washington—Harris Shapiro, 307 Taylor St., N. W., has permit three 1-story masonry stores, 300, 306 and 308 Kennedy St., N. W., cost \$18,000.

La., Monroe—Bauer Brothers' Construction Co., Belleville, Ill., has contract, \$23,164, for 2-story department store building for W. C. Grant chain store; plumbing and heating contract let to W. J. Riley Plumbing Co.; Love & Barr, Archts. 3-24

Mo., St. Louis—Witler Estate, Inc., 3237 Geyer St., has permit for 1-story building, 50x60, 3970-72 Chouteau St.; Harry L. McCafferty, Bldr. and Archt., 2533 Florent St.

N. C., Asheville—Greyling Realty Corp., 90 West St., of New York, reported, plans improving store, 5-11 Broadway, cost \$5000 to \$10,000, and 8-14 W. College St., cost \$40,000 to \$50,000.

Okla., Hobart—McMillan Construction Co., Enid, reported, have contract for 6-story and basement store and office building for J. L. Currethairs; cost \$125,000; E. H. Eads & Co., Chickasha, Archts.

Tex., Houston—J. Weingarten, Inc., 808 Prairie Ave., let contract foundation work Bace Construction Co., Post Dispatch Bldg., \$40,000, retail food market, Houston Ave. near Main and Pecora; 150x140, 1 story, conc. foundation, mostly terrazzo floors, built up roofing; \$90,000 estimated cost; equipment \$60,000; Joseph Finger, National Standard Bldg., engr. and archt. 2-24

Tex., Lubbock—Milton and Herd Jones, owners of Jones Building, reported, let contract to J. J. Clements, Contr., at \$25,000 to \$35,000, to replace building recently destroyed by fire.

Theatres

S. C., Anderson—C. M. Guest and Sons, Anderson, have contract, \$15,000, 2-story theatre building for George H. Bailes, local department store operator. 3-24

BUILDING CONTRACTS AWARDED

Association and Fraternal

Mo., Camdenton—J. E. Garbee, Springfield, has contract \$12,000, for Masonic Temple building for Lodge No. 152, A. F. and A. M.

Churches

Ala., Montgomery—Southside Baptist Church let contract to F. M. Lasseter for new building, Burton Ave. and South Hull St.; estimated cost \$10,000.

Md., Westminster—Church of the Brethren, Rev. Geo. Early, Pastor, let contract to Allen F. Feaser, Taneytown, Md., 2-story and tower church building, 45x80; Isaac Hoffer, Elizabethtown, Pa. 3-17

Dwellings

D. C., Washington—Boss & Phelps, 1417 K St., N. W., have permit for twelve 2-story, brick and frame dwellings, 5707-33 Third Place, N. W., and 314 Nicholson St., N. W., cost \$75,000.

D. C., Washington—Arthur S. Henning, Albee Bldg., has permit for 2 1/2-story dwelling, 2728 Thirty-Second St., N. W., cost \$45,000; Markham & Zirkle, Inc., contr., and James W. Adams, Archt., 1805 24th St., N. W.; 20 rooms, 23x115, red brick, with brown stained oak trim, natural cedar shingle roof.

Fla., Miami Beach—Mrs. E. W. Kelley has permit for residence, 3127 Prairie Ave., cost \$9,500; V. H. Nellenbogen, Archt., C. R. Clark, Contr., both 925 Lincoln Rd.

Ga., Macon—L. W. McManus let contract for 2-story brick residence to M. E. Shaw, Contr., 810 Mulberry St., \$15,000; asbestos shingle roofing, copper gutters, valleys and flashings, gas heat with humidifier and air-cooling system; W. Elliott Dunwoody, Archt., 460 Broadway.

Okla., Oklahoma City—Oscar Grace, 509 W. 11th St., erecting 2-story English type residence, stone exterior; East Fourteenth St. and Everest Ave.; cost \$15,000. B. Gaylord Nottsgier, Archt., 2705 N. W. 18th St., with John J. Harden, Inc., Petroleum Bldg. 10-15

Government and State

Fla., St. Petersburg—Following sub-contracts let, Veterans Administration Home: Hollow tile, miscellaneous building material, Dann-Gerow Co., 19th St. and Second Ave., South, St. Petersburg; Portland cement, Florida Portland Cement Co., 305 Morgan St., Tampa; concrete rock, Florida Crushed Stone Co., Brooksville; sand, Shands and Baker, Inc., Lake Wales; steel and ornamental metal, Farquhar Machinery Co., 720 W. Bay St., Jacksonville; roofing and sheet metal, Allen Roofing & Sheet Metal Works, Inc., 215 S. Rome Ave., Tampa; lumber, Pinellas Lumber Co., 1400 Central Ave., St. Petersburg; plumbing and heating, Walter Denson, 2916 Olga Pl., Jacksonville; mill work, Gulf Lumber and Millwork Co., Clearwater; ornamental terra cotta, Hull Brick & Tile Co., 546 Stockton St., Jacksonville; agents; common brick, Columbus Brick and Tile, Dixon; electrical work, Miller Electric Co., 487 Riverside Ave., Jacksonville. James I. Barnes, Barnes Bldg., Logansport, Ind., Gen. Contr. 3-10

Ga., Macon—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, let contract to Concord Construction Co., 5631 Sansom St., Philadelphia, Pa., \$298,298, extending and remodeling U. S. post office. 2-25

Ky., Ashland—Geo. Thomason & Son Co., 30 N. La Salle St., Chicago, Ill., has contract, \$52,175, remodeling and extending U. S. post office. 2-24

Ky., Lexington—Veterans Administration, Arlington, Washington, let contract to Smythe & Co., 1416 F St., N. W., Washington, \$9,834, additions to garage No. 3, Veterans Administration Hospital. 3-3

La., Barksdale Field, Shreveport—K. C. Wilson, Slattery Bldg., Shreveport, has contract, \$38,650, construction, 1-story, rein. concrete, brick, tile and stucco trim gymnasium building. 3-31

N. C., High Point—Treasury Dept., Washington, let contract to Spence Brothers, Brey Arcade, Saginaw, Mich., U. S. post office building; cost \$234,800. 3-31

Warehouses

Okla., Enid—General Warehousing Co., reported, let contract terminal freight warehouse, W. E. Krumrei, Enid, \$340,000; conc.

and steel construction, fireproof, 2-stories and basement; will add three stories later at cost \$110,000; G. E. Blumenauer, Enid, Archt.
Va., Norfolk—R. R. Richardson & Co., Natl. Bank of Commerce Bldg., have contract

for repairing fire damage to Holly Holding Corp. warehouse at Princess Anne road and Park Ave., occupied by S. D. Scott & Co. (feed), Southgate Terminal; estimated cost \$10,000.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Machinery and Supplies

Boiler.—P. C. O'Haver, Charlotte Harbor, Fla.—Wants prices and data on light weight steam boiler; portable, or to be used on trailer; not more than 25 or 30 h. p., possibly less; 75 lb. pressure sufficient; oil burner preferred; to be used for sterilizing rose beds.

Boiler.—Peter Zechini, Jellico, Tenn.—Wants prices and data on 2 used boilers, 150 h. p., to stand insurance test for 150 lb. pressure.

Engine (Diesel).—Herfurth Machinery Corp., Alexandria, Va.—Wants prices and data on 50, 100 and 200-h. p. Diesel oil engines with and without alternating generators.

Generator. See Engine (Diesel).

Gold Mining Machinery.—Austin Bond Co., 920 Littlefield Bldg., Austin, Tex.—Wants prices and data on gold mining machinery.

Hydraulic Press.—T. E. King, Gen. Mgr., Denmark Machine & Foundry Co., Box 97, Denmark, S. C.—Wants prices and data on vertical hydraulic press; hand power pump preferred, but can use belt power through tight and loose pulley drive; at least 50 ton capacity; to be used for pressing in and out bushings and straightening shafts and front axles of automobiles; good mechanical condition, f. o. b. cars, Chester, S. C.; requests photo or cut with quotation.

Piston Rings (Gas Engine).—Roy Stibbs, R. D. 1, Burbank, Ohio—Wants prices and data from manufacturers of piston rings for gas engines.

Planer.—Chas. W. Cox (Lumber Dealer), Gambrells, Md.—Wants prices and data on new planer.

H. P. Dugdale, R. R. 5, St. Joseph, Mo.—Wants following for meat packing plant:

- (1) Boiler
- (2) Hoists
- (3) Heating Equipment
- (4) Ice Machines
- (5) Lavatories
- (6) Piping
- (7) Rails and Switches
- (8) Scales
- (9) Tables, etc.

Wilkes County Co-Operative Assn., Washington, Ga., wants following:

- (1) Canner—capacity 50 No. 2 cans
- (2) Sealer—capacity 700 to 1500 cans per day of Nos. 1, 2, 3 and 10.

George W. Katterjohn & Son (Constrs.), Box 83, Paducah, Ky., want following for gasoline service station:

- (1) Compressor
- (2) Flood Lights
- (3) Pumps
- (4) Safe
- (5) Standards
- (6) Storage Tanks—three of 12,000 gal. capacity.

Hoffman Mfg. and Development Co., E. J. Hoffman, Suite 2223-41-42, P. O. Box O, Hotel Sapulpa, Sapulpa, Okla.—Wants prices and data on:

- (1) Continuous Circuit Carriers
- (2) Drill Presses—large and small
- (3) Elevators
- (4) Fans—large, driven on direct circuit
- (5) Generators
- (6) Lathes—electric driven
- (7) Punch Drills—high speed, electric
- (8) Rolling Mill—complete
- (9) Stamping Machines—electric driven.

R. P. Johnson (Mchy. Dealer), Wytheville, Va.—Wants prices and data on:

- (1) Hoisting Engine—30 h. p., d. c., steam, with boiler, used, good condition
- (2) Locomotive—42 in. gauge, steam, 10 to 15 ton.

Lathe.—Medley Mfg. Co., Columbus, Ga.—Wants prices and data on used, belt driven buffing or polishing lathe.

Building Material and Equipment

Leonard Vyne, North Wilkesboro, N. C., wants prices on following for theatre building:

Steel.—for roof 50 ft. long, shorter lengths for floor supports.

Bids Asked

Air Compressor.—Dist. Commrs., Dist. Bldg., Washington, D. C.—Bids April 11 for portable air compressor, mounted on truck.

Alley Improvements.—St. Louis, Mo. See Construction News—Roads, Streets and Paving.

Automobile Trucks.—Purchasing and Contracting Officer, Holabird, Q. M. Depot, Baltimore, Md.—Bids April 29 for 4 1½-ton automobile trucks.

Boundary Lighting System.—Dept. of Commerce, Aeronautics Branch, Airways Division, Lighthouse Service, Washington, D. C., W. S. Erwin, Ch., Div. of Purchase and Sales—Bids April 11 for reconstruction of boundary lighting system, Site 71, type D, Smiths Grove, Ky., on Nashville-Louisville section of airway; work consists of reconstruction of field boundary lighting system, removing and relaying about 2500 ft. of No. 10, A. W. G. parkway cable, furnishing and laying about 5100 ft. of No. 10 A. W. G. parkway, dismantling and installing 5 boundary markers, installing 6 lighted boundary markers, painting structures, etc.; additional information on application to Inspector of Airways Construction, Elizabethtown, Ky., or to Commr. of Lighthouses, Washington, D. C.; Proposal No. 24200.

Bridge.—Maryland. See Construction News—Roads, Streets and Paving.

Canvas and Muslin.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 11 for 400 yd. canvas and 300 yd. muslin, delivery Quantico, Va.

Ceilings.—Contracting Quartermaster, Maxwell Field, Montgomery, Ala.—Bids April 27 for gypsum ceilings in a. c. warehouse and a. c. shops.

Chairs.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 15 for 240 steel frame chairs, delivery Sewall's Point, Va.

Chairs.—Supt., St. Elizabeth's Hospital, Washington, D. C.—Bids April 12 for 576 rocking chairs and 144 arm chairs.

Clothing.—Purchasing Officer, Room 144, Dept. of Interior, Washington, D. C.—Bids April 20 for underwear, hosiery, etc., as required by Indian Service during fiscal year 1933.

Clothing.—Purchasing Officer, Dept. of Interior, Washington, D. C.—Bids April 14 for annual supply of clothing as required by Indian Service during fiscal year 1933.

Coal.—Quartermaster Supply Officer, Fort Sam Houston, San Antonio, Tex.—Bids April 25 for bitum. coal for various deliveries.

Coal.—Chief, Property and Contract Div., Supply Service, Veterans' Administration, Washington, D. C.—Bids April 26 for coal for various deliveries during fiscal year 1933.

Conveyor.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids April 13 for conveyor, delivery Quantico, Va.

Culvert.—Mississippi. See Construction News—Bridges, Culverts and Viaducts.

Drainage.—Louisiana. See Construction News—Drainage, Dredging and Irrigation.

Drainage.—Lake End, La. See Construction News—Drainage, Dredging and Irrigation.

Drainage Canal.—Mobile, Ala. See Construction News—Drainage, Dredging and Irrigation.

Dredging.—Langley Field, Hampton, Va. See Construction News—Drainage, Dredging and Irrigation.

Drugs and Chemicals.—Div. of Supply, Treasury Dept., Washington, D. C.—Bids April 12 for drugs and chemicals.

Dry Goods, etc.—Purchasing Officer, Room 144, Dept. of Interior, Washington, D. C.—Bids April 15 for dry goods, etc., as required by Indian Service during fiscal year 1933.

Elevators.—Bd. of Public Service, City Hall, St. Louis, Mo.—Bids Apr. 19 for replacing 2 elevators at City Hospital No. 1.

Eliminators.—U. S. Coast Guard Headquarters, Washington, D. C.—Bids April 11 for B & C eliminators, Spec. RRS-126, in lots of 50 to 130.

Fabrication of Towers.—Div. of Purchase and Sales, Dept. of Commerce, Washington, D. C.—Bids April 11 (postponed from Mar. 31) for fabrication of steel towers.

Face Blanks, etc.—Chemical Warfare Service, Edgewood Arsenal, Md.—Bids April 11 for 1020 face blanks, 4100 rubber lens diaphragm gaskets, 4400 valve discs, 100 sq. ft. sheet rubber, and 100 sq. ft. hose tubes.

Fence and Gates.—Veterans Administration, Construction Service, Room 764, Arlington Bldg., Washington, D. C.—Bids Apr. 26 for constructing and finishing complete at Veterans' Administration hospital, Tuscaloosa, Ala., wire fence and gates.

Furniture.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 15 for furniture, delivery Quantico, Va.

Gasoline and Kerosene.—U. S. Engr. Office, Montgomery, Ala.—Bids May 28 for gasoline and kerosene.

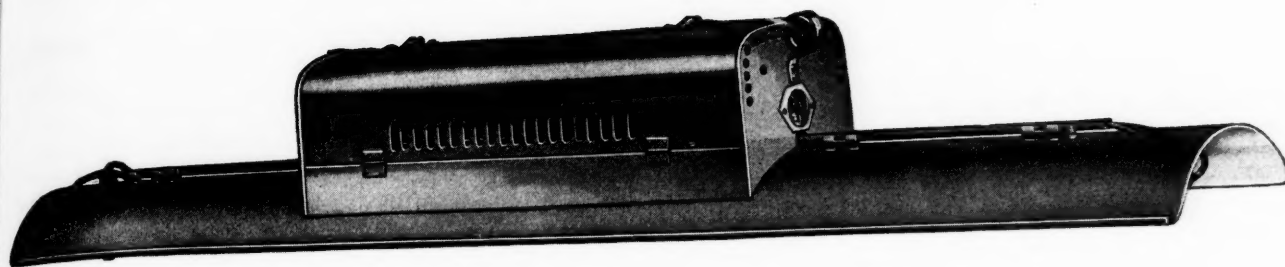
Heaters, etc.—Bureau of Prisons, Dept. of Justice, Washington, D. C.—Bids April 12 for feed water heater, storage hot water heater, instantaneous hot water heater, boiler feed water regulators, boiler feed water pumps, steam heating vacuum pumps, hot water circulating pumps, condensation pumps and receiver, pump governors, lubricators, forced feed and hot water storage tank.

Highway Maintenance Equipment.—State Highway Bd., J. W. Barnett, Chmn., No. 2 Capitol Square, Atlanta, Ga.—Bids Apr. 20 for year's supply maintenance equipment as follows: Approx. 56-1½ ton dump trucks, enclosed cabs; 12 5-ton crawler type tractors (3 to be traded on this item); 20 8-ft. pull type road graders, engine hitch; 8 high speed mowing machines, tractor or truck hitch; 2 5 to 6-ton 3-wheel gasoline road rollers; 1 10-ft. double disc harrow, tractor hitch; 1 ¾-cu. yd. gasoline shovel, crawler type (1 shovel to be traded on this item); 1 portable tank car heater, mounted; 5 industrial tractors, wheel type; 7 12-ft. one man power road graders (1 one man power grader to be traded on this item); 48 8-ft. 3-blade road drags; 3 pick-up trucks, enclosed cabs (1 Ford to be traded on this item); 1 portable mud jack, mounted; 1 2½-ton 4-wheel drive dump truck with 12 ft. underbody road scrape attachment.

Kitchen Utensils.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 12 for kitchen utensils, delivery Philadelphia, Pa.

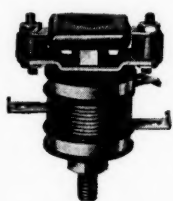
Lacquer and Stain.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 11 for lacquer and stain, delivery Quantico, Va.

Lighting Fixtures.—Supvg. Archt., Treasury Dept., Washington, D. C.—Bids Apr. 21 for furnishing and installing interior lighting fixtures in post office, court house, etc.



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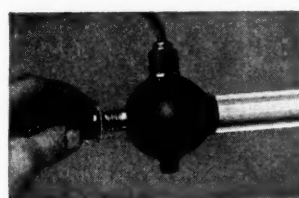
By the introduction of a new electrical circuit which includes a newly invented copper oxide rectifier, the new and improved Cooper Hewitt Lamp starts more quickly than any previous A. C. model. This new circuit, developed by General Electric



Vapor Lamp Company engineers, now supplies direct current for the shifter action so arranged as to be always of the correct polarity for starting the lamp. What this invention means is readily understood when it is remembered that starting is accomplished by the interruption of the line current through an inductance coil and, until now, half of the shifter cycles of the alternating current occurred on the wrong polarity. Now every operation of the shifter is correct for lamp starting—twice as fast as was heretofore possible.

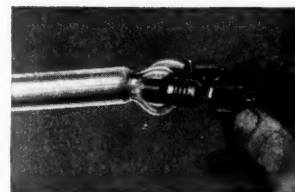
Many other improvements, including a new

style, straight line tube with screw terminals attachable by hand, make this new model lamp



the finest industrial lighting unit ever produced. Write for Catalog 505 for complete details.

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Miscellaneous.—Pur. Agt., Post Office Dept., Washington, D. C.—Bids April 19 for miscellaneous supplies as required during fiscal year 1933, including flashlight batteries, carriage bolts, stove bolts, step bolts, paint brushes, electric cable, brushes, armored cable, clamps for radiator hose, brass hose clamps, cotter pins, ignition files, flashlights, tire gauges, lenses, terminals, lock washers, mirrors, graphite penetrating oil, oil measures, radiator repair solution, screw drivers, spark plugs, sponges, valve insides, valve grinding compound, valve stem caps, combination patch and heat units, automatic windshield cleaners and wipers.

Mowing Machines.—See Highway Maintenance Equipment.

Nozzle Elbows, etc.—Chemical Warfare Service, Edgewood Arsenal, Md.—Bids April 11 for 4250 aluminum nozzle elbows and 2020 angle tubes.

Nozzle.—U. S. Engr. Office, Vicksburg, Miss.—Bids April 11 for multi-jet, sand and gravel dredging nozzle.

Paints, etc.—Contracting Officer, Q. M. Corps, Fort Monroe, Va.—Bids April 11 for paints, varnish, drier, turpentine, lacquer, linseed oil, metal polish, cartridge fuses, wire lamp guards, bushings, nipples, brass polish, brass pipe, brass valve, etc.

Paints, etc.—Quartermaster, A. C. F. A. S., Kelly Field, San Antonio, Tex.—Bids April 12 for white paint, linseed oil, paint drier, pigments in oil, putty, paint and varnish remover, white shellac, floor varnish, floor wax, turpentine, orange shellac, denatured alcohol.

Painting.—Bd. of Public Service, City Hall, St. Louis, Mo.—Bids Apr. 19 for interior painting in E bldg., City Infirmary.

Paving Blocks.—Bd. of Awards, Office of City Register, City Hall, Baltimore, Md.—Bids April 13 for furnishing and delivering vit. paving blocks.

Pier and Bulkhead Repairs.—Chief, Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids April 20 for repairs to pier and bulkhead at marine barracks, Quantico, Va.

Pipe (Concrete).—See Sewer Castings, etc.
Pipe (Reinforced Concrete).—See Sewer Castings, etc.

Plumbing Supplies.—Post and Acting Div. Quartermaster, Purchasing and Contracting Branch, Fort Sam Houston, San Antonio, Tex.—Bids April 11 for shower outfits, water closet outfits, lavatories, medicine cabinets, soap dishes, towel bars, paper racks, brush and glass holders, coat hooks, gas heaters, pipe covering, cast iron pipe, g. i. pipe, black iron pipe, lead pipe, solder, oakum, sheet lead, tees, elbows, bends, Y's, plugs, ferules, unions, nipples, stop cocks and valves.

Pump.—U. S. Engr. Office, Memphis, Tenn.—Bids April 12 for duplex steam pump.

Radio Supplies.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 11 for radio supplies, delivery Washington.

Retaining and Guard Walls.—Sharpsburg, Md. See Construction News—Miscellaneous Construction.

Refrigerators.—Quartermaster, Key West Barracks, Key West, Fla.—Bids April 11 for 7 fte cooled refrigerators, approx. 30 cu. ft. storage capacity.

Roads.—State of Maryland, 5 roads. See Construction News—Roads, Streets and Paving.

Road.—West Virginia. See Construction News—Roads, Streets and Paving.

Roads.—State of Kentucky, 5 roads. See Construction News—Roads, Streets and Paving.

Road Material.—Towson, Baltimore, Md. See Construction News—Roads, Streets and Paving.

Road Materials.—St. Louis County, Roy Jablonsky, Highway Engr., Clayton, St. Louis, Mo.—Bids Apr. 13 for furnishing road oil and bitumen for roads.

Road Materials.—State Highway Comsn., A. P. Tugwell, Chmn., Baton Rouge, La.—Bids April 26 for furnishing following materials: Washed and screened gravel, 40% sand-clay gravel, reef shell, clam shell, crushed limestone, slag and sand in such quantities as may be required by Maintenance Dept. during May.

Roof Repairs.—Lake Charles City School Bd., Floyd Hamilton, Pres., Lake Charles, La.—Bids April 25 for furnishing all material and labor necessary to repair roofs of First and Second Ward negro schools; separate proposals will be submitted for each building, and combination proposal for both buildings; R. S. McCook, Archt.

Stairs.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 13 for 2 steel stairs, delivery Quantico, Va.

Steel Forms.—U. S. Engr. Office, Memphis, Tenn.—Bids April 19 for furnishing and delivering steel forms for casting articulated concrete mattress for revetments.

Steel Cases.—Bureau of Census, Dept. of Commerce, Washington, D. C.—Bids April 11 for 100 steel map file cases.

Streets.—Baltimore, Md. See Construction News—Roads, Streets and Paving.

Stump Socks.—Office of Chief, Property and Contract Div., Veterans' Administration, Arlington Bldg., Washington, D. C.—Bids April 29 for wool stump socks and fillers for veterans' hospitals during fiscal year 1933.

Text Books, Stage Curtains.—Bd. of Awards, Office of City Register, City Hall, Baltimore, Md.—Bids April 13 for furnishing and delivering textbooks, and installing stage curtains for schools Nos. 41 and 133, for Dept. of Education; Joshua R. Jolly, Act. Sec., Bd. of School Commrs.

Street.—Maplewood, St. Louis, Mo. See Construction News—Roads, Streets and Paving.

Tractors.—See Highway Maintenance Equipment.

Valves, Hydrants, Etc.—Bd. of Awards, Office of City Register, City Hall, Baltimore, Md.—Bids April 13 for furnishing and delivering valves, hydrants and repair parts to Bureau of Water Supply; plans \$5. Leon Small, Water Engr.

Ventilating Fan.—U. S. Engr. Office, Navy Bldg., Washington, D. C.—Bids April 12 for ventilating fan, electric motor.

Window Shades.—Quartermaster Corps, Army Medical Center, Washington, D. C.—Bids April 14 for furnishing and installing window shades on metal window frames in addition to Army medical school, cir. 5.

Bureau of Supplies and Accounts. Navy Dept., Washington, D. C.—Bids until dates indicated, delivery as indicated, for:

Excelsior.—various east and west coast points, Apr. 19

Water-Gauge Glasses.—various east and west coast points, Apr. 19

Bolts and Nuts (Brass).—Philadelphia, Pa., Apr. 12

Milling Machines.—No. 2, universal, and spare parts, various east and west coast points, Apr. 19

Engine Lathes.—and spare parts, various east and west coast points, Apr. 19

Sponges.—loofa, fiber, various east and west coast points, Apr. 19

Asbestos Mittens.—Brooklyn, N. Y., and Philadelphia, Pa., Apr. 12

Rubber Gloves.—various east and west coast points, Apr. 19

Glycerin.—various east and west coast points, Apr. 19

Aircraft Propeller Blades.—Philadelphia, Pa., Apr. 19

Tractor.—gasoline driven, New York, N. Y., San Francisco, Calif., and Pearl Harbor, T. H., Apr. 19

Sheet Steel.—chrome-nickel, corrosion resistant, Philadelphia, Pa., Apr. 19

Valve Refinishing Machine.—and set of refinishing tools, San Diego, Calif., Apr. 19

Iron.—foundry, pig, Brooklyn, N. Y., Apr. 19

Caustic Soda (Lye).—34,000 lb., Brooklyn, N. Y., Apr. 19

Universal Hydraulic Testing Machine.—motor driven, Hampton Roads, Va., Apr. 19

Bolts and Nuts (Steel).—Philadelphia, Pa., Apr. 12

Drills.—sensitive, motor driven, and spare parts, various east and west coast points, Apr. 19

Grinders.—double emery, motor driven, and spare parts, various east and west coast points, Apr. 19

Crank Shapers.—motor driven, and spare parts, various east and west coast points, Apr. 19

Drills.—upright, motor driven, and spare parts, various east and west coast points, Apr. 19

Coats and Trousers.—woolen, submarine, Brooklyn, N. Y., Apr. 12

Trailers.—Quantico, Va., and San Diego, Calif., Apr. 19

Drinking Fountain.—electrically operated, San Pedro, Calif., Apr. 19

Vacuum Tubes.—Mare Island, Calif., Apr. 19

Sheet Steel.—corrugated, 229,000 lb., New York, N. Y., and San Francisco, Calif., Apr. 19

Panama Canal. Office of Gen. Pur. Officer, Washington, D. C.—Bids April 15 for following, Sch. 2743:

Reinforcing bars, welded-steel pipe, cast-iron pipe, coil chain, firebrick, grindstone, safety valves, grip-lock nuts, step-ladders, suction hose, asbestos-magnesia pipe covering, smithing coal, oil circuit breakers, electric light reflectors, insulators, panelboards, solenoids, switchboard panels (with accessories), magnetic switches, knife switches, limit switches and current transformers.

Southeastern Council Program

Work is being pushed on the initial program adopted at the recent Atlanta meeting of the Southeastern Council's Committee of Five Hundred. Committees were assigned under the following heads:

Recreation; Research; Transportation; Legislation; Finance and Budget; Health; Agriculture; Banking; Forestry; Distribution and Marketing; Publicity; Industries; Power; Education.

President Hugh MacRae of Wilmington, N. C., cited three facts that influence the present and future of the Southeastern States:

The first is an adverse balance of trade due to the fact that the Southern people buy more service from others than they sell to others.

The second is the obsolete system of agriculture which is the underpinning of the South's economic structure; a system based largely on cash crops, often one-crop, and its attendant evils.

The third is the restoration of forests, requiring the proper use of cut-over and marginal lands for this purpose. This may be considered supplemental to agriculture, a crop of trees, with the product of lumber and pulp wood which would enrich any country if carried on under enlightened practice.

It is the endeavor of the Council to develop within the South industries to supply local needs; this, Mr. MacRae points out will start manufacturing, help in relieving the unemployment problem, attract new capital, strengthen local agricultural markets and financial institutions, and create taxable values to support local governments.

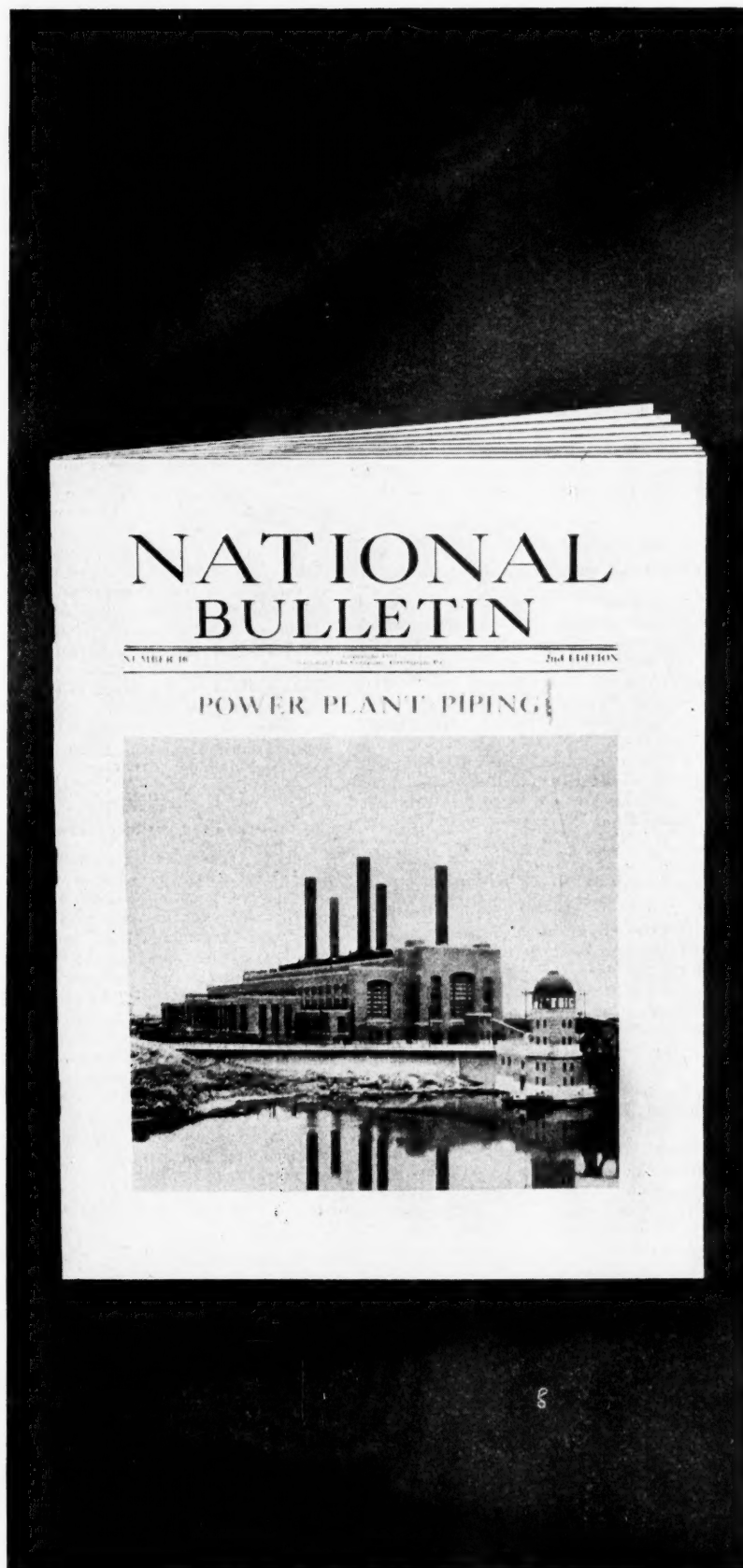
\$1,159,000 Phone Expenditure

Richmond, Va.—The Board of Directors of the Chesapeake and Potomac Telephone Company of Virginia, meeting in this city, authorized the expenditure of \$650,790 for additional telephone facilities in Virginia to meet a growing demand for service. In addition, the Board also authorized expenditures of \$509,000 for extraordinary repairs, including the removal of poles, wire and crossarms damaged in a recent snow storm. According to Charles H. Weber, general manager, the latter expense will be met from a depreciation reserve maintained for such emergencies. New plant and equipment to be provided bring total authorizations for similar projects so far this year to \$1,846,749. Construction will cover pole lines and wire, underground and aerial cable extensions, and installation of telephones and private branch exchange switchboards on subscribers' premises.

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Pacific Coast Distributors—Columbia Steel Company, Ross Building, San Francisco, Calif. Export Distributors—United States Steel Products Company, 30 Church Street, New York, N. Y.		

INDUSTRIAL NEWS

Sullivan Knoxville Office

The Knoxville, Tennessee, office of the Sullivan Machinery Company, Chicago, is now located at 503 Medical Arts Building, instead of 623 Market Street, as heretofore. E. L. Thomas is manager.

Railroad Official Retires

After a railroad career of 43 years, Col. M. C. Kennedy, a vice-president and director of the Pennsylvania Railroad Company, has been retired under the company's pension regulations. Col. Kennedy joined the Pennsylvania in 1919, following 30 years' service with the Cumberland Valley Railroad, six as president. He has been in charge of the purchasing department of the Pennsylvania Railroad since 1920.

Production Machinery and Methods

M. S. Smith, vice-president, and B. M. Sayre, works manager, of the Carrier Engineering Corporation, Newark, N. J., presented a statistical study of various plans for change in production machinery and methods at the recent Job Order Production Conference on Long Range Planning for Production Management. The conference was one of a series held in Chicago in connection with the Second Packaging Exposition staged under auspices of the American Management Association, New York.

Installing Moore Dry Kiln

The Temple Lumber Company, Hemphill, Tex., is remodeling and modernizing a large double-track dry kiln, 20 feet wide and 120 feet long, to place the manufacturing facilities of the plant in shape for more efficient production. The kiln is being remodeled to the Moore Reversible Cross-Circulation Fan system for drying both hardwoods and softwoods, including green as well as air-dried stock, and is being equipped with a specially designed Multiple-Heating system by which it may be operated by either "charge" or "progressive" method, an improvement greatly increasing flexibility and usefulness. The new equipment, which will increase the kiln capacity of the plant, was engineered and manufactured by the Moore Dry Kiln Company, Jacksonville, Fla., and is being installed under its supervision.

St. Louis Plant Changes Hands

The Airtherm Manufacturing Company, St. Louis, has purchased machinery, inventory, patents, trade mark, good will, orders on hand and other items making up the business of Skinner Bros. Mfg. Co., Inc., and will continue the manufacture of a line of heaters developed by the latter. The Airtherm Manufacturing Company will also continue the manufacture of blow pipe and dust collecting systems, ventilating systems, fans, special sheet metal work and general sheet metal products. Officers of the company are A. W. D. Weis, Quincy, Ill., president; R. J. Tenkonohy, St. Louis, vice-president, and G. H. Everett, secretary. Sales manager for the St. Louis district is Meade McArdle. The company also has sales representatives in the larger cities throughout the country. Property of the Skinner Bros. Mfg. Co., Inc., at 1474 South Vandeventer avenue, has been sold by the receivers of the company to the Vandeventer Realty Company, newly incorporated, of which Mr. Weis is also president.

Torrence Heads Link-Belt

Stockholders of the Link-Belt Company, Chicago, at the 58th annual meeting on March 22, elected George Paull Torrence, president, elevating him from the vice-presidency in charge of the company's Indianapolis operations. Graduating from Purdue University in 1908, Mr. Torrence has had 21 years' experience in various departments of the Link-Belt Company. As president, he will be responsible for management of the company's 17 plants and warehouses, with conveying and power transmission machinery sales organizations in principal cities.

90-Ton Cast Iron Pipe Order

The Charlotte Pipe and Foundry Company, W. Frank Dowd, Jr., president, Charlotte, N. C., has received an order for 90 tons of cast iron pipe for immediate delivery in Hawaii, according to Mr. Dowd. Production of the pipe is now in progress and shipment will soon be started. The order calls for shipments of 70 tons to Honolulu and 20 tons to Hilo. Pipe will be sent to Charleston, S. C., by rail, thence by steamship through the Panama Canal to San Francisco, and transhipped there to a vessel sailing for Hawaiian ports. The two shipments represent 16,000 pieces of pipe and 3175 pieces of cast iron fittings.

Organized Accident Prevention

On the theory that every industrial concern is entitled to the benefits of organized accident prevention, the National Safety Council, Chicago, has announced a plan for spreading the "gospel of industrial safety." Safety work of several thousand industrial members in all industries was recently analyzed and the most effective technique will be made available to any plant desiring a specific course of safety procedure without cost. As a result of the survey the Council offers, to old and prospective members, a "Complete Industrial" Service, representing a high standard in safety technique and reaching not only management, key safety men and foremen but also employees.

Gastonia Industrial Survey

To make available pertinent information to prospective industries, the Gastonia Industrial Commission, Gastonia, N. C., is making a thorough study of present industrial development and factors which might influence the location of new industrial plants and distributing houses. This is in anticipation of renewed activity on the part of manufacturing concerns, and in the belief that the continued trend of industry Southward will greatly benefit Gastonia and the Gastonia area. Members of the Commission state that the Gastonia area, now producing more than 80 per cent of the fine combed cotton yarn of the country, offers unusual opportunities for the manufacture of widely diversified lines and particularly those allied in some way with the textile industry, including firms using cotton, silk or rayon yarns or cloth, and those manufacturing machinery and supplies for textile plants.

Illinois Central Earnings

The Illinois Central operating income of \$1,179,000 for February was above most predictions, since only \$108,547 was reported for the corresponding month of 1931. A further gain is looked for in March.

Pennsylvania Railroad Report

Net income of the Pennsylvania Railroad for 1931 amounted to \$19,545,194, the equivalent of 2.97 per cent on the capital stock or \$1.49 a share of \$50 par value, according to the 85th annual report of the company. While expenses were reduced during the year by nearly \$75,000,000, gross income declined more than \$122,000,000, a drop under the previous year of 21.5 per cent. Stockholders received dividends in 1931 aggregating \$42,674,591, but a part of this sum, which was equal to 6½ per cent or \$3.25 a share, was provided out of surplus. Surplus of \$14,020,107, after fixed charges and appropriations to reserve funds, but before dividends, was credited to profit and loss. Total surplus in the profit and loss account amounted to \$202,870,846 as of December 31, 1931.

Progress was made by the company during the year on major improvements in Philadelphia, Jersey City, Baltimore, Chicago, and Cincinnati, while work continued on the electrification of the company's lines between New York and Washington. It is expected that electrification between New York and Philadelphia will be completed and this section of the line ready for service in 1933, at which time electric operation of local and through passenger trains will be inaugurated between these cities. The program of Philadelphia suburban electrification was completed in 1930. More important items of new equipment placed in service on the system during the year were: 1500 all-steel 70-ton gondola cars; 6 electric passenger locomotives, and 2 locomotive tenders. Orders for delivery of equipment include 90 electric passenger locomotives; 62 electric freight locomotives, and 20 locomotive tenders. President W. W. Atterbury states that the present unsatisfactory economic condition will eventually be readjusted, and that the Pennsylvania will participate as it has always done in periods of prosperity following business and financial disturbances.

Important factors which give the general business and railroad future a more constructive and helpful perspective, according to the report, are the recent employees' voluntary wage reduction, the formation by the carriers of the Railroad Credit Corporation and by the Government of the Reconstruction Finance Corporation, in addition to benefits that should be derived from proposed legislation "to liberalize, for emergency periods, the rediscounting and loaning powers of the Federal Reserve System, all of which should be helpful in meeting some of the country's most serious problems." General Atterbury finds another helpful sign in the attitude of the Interstate Commerce Commission, as indicated by its recent annual report, recommending that rail and highway transport be coordinated, that Congress take interstate bus service under its jurisdiction, investigate the question of subsidized competition with the railroads, and consider the problem of regulating port to port rates of carriers by water.

Atlanta Reliance Representatives

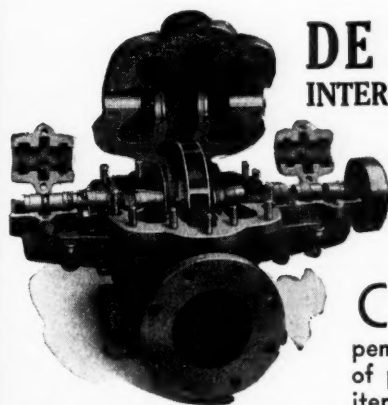
The Reliance Electric & Engineering Co., Cleveland, Ohio, manufacturers of alternating and direct current motors, have established a sales branch at 703 Bona Allen Building, Atlanta, in charge of Marshall Whitman and George Gardner, to take care of North Carolina, South Carolina and Georgia. Mr. Whitman has sold electrical equipment in the South for many years, while Mr. Gardner, formerly assistant electrical engineer with Robert & Co., Atlanta, is familiar with electrical requirements for textile machinery.

(Continued on page 54)

PIPING REQUIREMENTS
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ALL PRESSURES AND SERVICES

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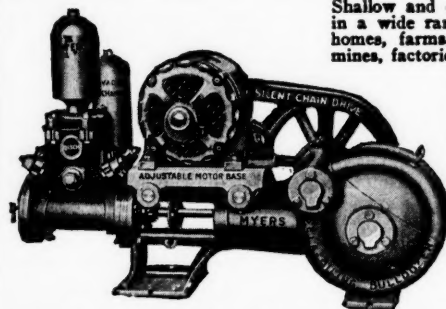
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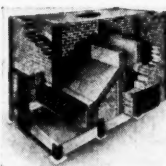
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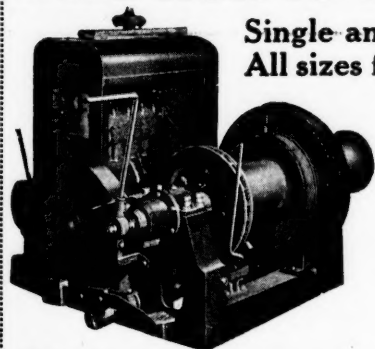
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PROVIDENCE, R. I.

The Fairbanks Company, Sales Agent
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(Continued from page 52)

Takes Over Subsidiaries

The Pittsburgh Steel Company, Pittsburgh, Pa., according to announcement by President H. D. Williams, has taken over the entire assets and assumed the liabilities of its subsidiaries, the Pittsburgh Steel Products Company (Seamless Tube Division) and the National Steel Fabric Company (Fabric Division), capital stock of each having been wholly owned by the parent company for many years. Business formerly carried on by the subsidiaries individually will now be under the direct management and control of the Pittsburgh Steel Company, and all billing, invoices, contracts, etc., will be in the name of that company.

FA Lighting for Siam Theater

Visiting the United States last year, the King of Siam is said to have become greatly interested in the lighting effects produced in American theaters and inquired as to equipment used. He was particularly impressed with control equipment and the number of houses using the FA Major System of lighting, it is announced. As a result of his visit and observation, the Frank Adam Electric Company, St. Louis, Mo., recently completed shipment of an FA Major System of lighting control for the Chaleron Krung Theatre, Bangkok, Siam. The system is of the full remote control type and provides individual and accumulative control of both switching and dimming. Krom Wang Nork, Bangkok, was architect and engineer for the building.

Pittsburgh Plate Glass Company

Net earnings of the Pittsburgh Plate Glass Company, Pittsburgh, Pa., amounted to \$2,201,746 in 1931, according to the annual report of the company, compared with \$4,743,538 for 1930. Gross earnings in 1931 were \$6,165,848, compared with \$9,121,841 in 1930. The company maintained its strong financial position, the report showing current assets at the end of 1931 of \$31,717,050, including \$2,315,610 in cash, with current liabilities of \$2,545,956 in accounts payable. Quick assets at the end of 1930 were \$26,465,506 with \$3,003,031 in accounts payable. At the end of 1931, the net surplus was \$36,884,381, compared with \$38,347,648 at the end of 1930. Capital stock outstanding is \$54,313,100, a gain of less than \$200,000 over 1930. Expenditures for improvements during 1931 amounted to \$5,504,177. While plate glass consumption was down 20 per cent in 1931, there is encouragement in the 1932 demand for Duplate (safety glass). Production and sales of window glass from the company's own plants increased in 1931, while the volume of paint and varnish sales was also greater.

Trade Literature

Glass Factory Directory.—The American Glass Review, Pittsburgh, Pa., has published the Glass Factory Year Book and Directory for 1932, a handy compendium for glass factory executives and finishers and distributors of glass products. The publication presents data on manufacturers of glass products in the United States and Canada, with classifications of glass products and indices of raw materials and equipment, etc. It is priced at \$3.00.

"Caterpillar" Diesel Tractor.—The Caterpillar Tractor Co., Peoria, Ill., has issued a broadside on the "Caterpillar" Diesel Tractor, recently placed in production. The first fleet order of 10 "Caterpillar" Diesels, as well as "Caterpillar" Elevating Graders has already been shipped to Belgium for work on the Albert Canal.

"Double Arch" Dragline Bucket.—The Wellman Engineering Co., Cleveland, Ohio, has issued a 4-page bulletin devoted to the Williams "Double Arch" dragline bucket, which is declared to dig faster, handle easier and dump quicker and cleaner. This improved bucket is equipped with new patented teeth, designed and developed for dragline work.

Automatic Electric Review.—The foregoing is the name of a new journal published jointly by the American Automatic Electric Sales Company and the Automatic Electric Sales Company, Limited, Chicago. The publication, to be issued quarterly, will be devoted to progress in communication, signaling and remote control.

Testing Machines.—Bulletin No. 28, the latest of a series being prepared by the Baldwin-Southwark Corporation, Philadelphia, Pa., dealing with Southwark-Emery testing machines, has been issued by the company. The bulletin was prepared with something more than a descriptive and illustrative treatment of the Southwark-Emery line of testing machines in view; it is hoped that, to a certain extent, it will constitute a short text book on hydraulic testing machines.

First Use of Magazine Paper Georgia Materials

Waycross, Ga.—The striking two-color cover pages of "Georgia," official magazine of the Georgia Chamber of Commerce, now off the press, were printed on paper manufactured from Georgia woods and other state products; this is the "first born" magazine paper made from raw materials of the state, F. H. Abbott, editor of the publication, announced.

In addition to slash pine and gum, the two woods used, the paper was filled with Georgia clay and sized with rosin and alum, all state products. This paper is said to be one of more than 23 types made from Georgia slash pine, or slash pine and gum and cypress, made in the government experimental paper plant at Madison, Wis., according to Dr. Poole Maynard, consulting geologist and technologist and industrial geologist with the Atlanta, Birmingham and Coast Railroad, which has cooperated in the work.

Through the cooperation of Alex Sessoms, at Cogdell, Ga., and the A. B. & C. Railroad, the first slash pine collected for these tests was obtained in the great slash pine forests of Mr. Sessoms. The railroad penetrates the center of what is said to be the largest area of slash pine in America.

Textile Warehouse Completed

Houston, Tex.—Mente & Co., Inc., New Orleans, La., manufacturers and importers of burlap, cotton and burlap bags, bagging, ties, sugar bag cloth, cotton patches and twines, have completed construction of their third warehouse in Houston. This is a one-story steel and concrete structure, iron clad, with about 45,000 square feet of floor area and 25-foot head room. It is designed for a live load of 360 pounds per square foot and will house approximately 20,000

bales of burlap bagging weighing 625 pounds per bale. Keystone copper bearing galvanized iron was used for siding and Barber asphalt and gravel built-up roof. A Viking automatic sprinkler system was installed by the Texas Automatic Sprinkler Company, Houston. The building was designed by the Engineering Service Corporation, consulting engineers, Houston, and constructed by the owners, using day labor under supervision of the Engineering Service Corporation. Mente & Co., Inc., maintain factories and sales offices in New Orleans, Savannah, Houston, Boston and Dallas, and warehouses in Galveston, Houston and Dallas.

Birmingham District Chemical Survey

Birmingham, Ala.—Dr. Stewart J. Lloyd, Dean of the School of Chemistry, University of Alabama, has completed a chemical survey of the Birmingham district for the Birmingham Industrial Board. A report presents a succinct and clear account of natural raw materials, mineral and otherwise, found in the district or sufficiently near it to be available for use in the chemical industry. It comments on numerous developments of the past and outlines possible future developments, directing special attention to caustic soda and soda ash, chemicals for pulp and paper plants, paper plant by-products, agricultural chemicals, aluminum chloride, insecticides, fertilizers, cotton seed oil, magnesium and magnesium compounds, plastics or artificial resins, sodium sulfide, ceramic products, etc. In the preparation of the survey, which required several months, Dr. Lloyd, who is recognized as an authority among chemists and is in close contact with chemical concerns in the Birmingham district, has kept before him "the practical point of view as well as the theoretical." The survey is covered in a 94-page booklet issued by the Birmingham Industrial Board.

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Virginia Public Service Company, the largest unit in the Seaboard Group, is recognized as a progressive, "key" company in 375 cities and towns in Virginia and West Virginia. By fair rates and vigilant service, it encourages the industrial growth of these communities. As they grow the Company prospers with them.

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electric power to speed production and reduce cost, in their factories and mills. Also included are 6,700 progressive Virginia farmers who realize that electricity can increase their profits. The 51,300 domestic customers used more electricity last year than ever before.

Over 8,000 customers own preferred shares in Virginia Public Service Company. They have confidence in its soundness and future prosperity.

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GEORGIA POWER AND LIGHT COMPANY . . . Valdosta, Ga.
FLORIDA POWER CORPORATION St. Petersburg, Fla.

PART OF THE MIDDLE WEST UTILITIES SYSTEM



Lower Cotton Production Cost

By J. H. STALLINGS, Agronomist, District Number Eight, The National Fertilizer Association, Shreveport, La.

The only safe plan for the cotton grower is a plan which will lead to material reduction of the acreage, so that total production this year will be under total consumption. Also, it is essential that acreage planted be so handled that the unit of production will be reduced to the lowest possible figure.

In reducing acreage, only the best soils, well suited to cotton growth should be planted. Preparation of the land and cultivation of the crop should be economically performed. Only those varieties or strains of seed from cottons, which have been shown for each locality to be the best yielders of high quality product, should be planted. Where experience has shown the use of fertilizers to be essential for satisfactory yields, their use this year of all years should not be abandoned or lessened, either in quality or amount per acre. If used in the right kinds and amounts where needed, the cheapest possible production will be assured, provided other essential factors are carefully looked after.

In this connection, it is interesting to note that over a period of years the North Carolina Agricultural Experiment Station found the use of 600 pounds of fertilizer per acre, on an average, to constitute only about 16 per cent of the total cost of the cotton crop and it has more than tripled the yield, with an increase of 780 pounds of seed cotton per acre.

In Louisiana, results obtained at many points during 1931 by the Louisiana Agricultural Experiment Station show that the proper use of fertilizer is a very satisfactory method of combating low selling prices for cotton. For example:

A 600-pound application per acre of 4-8-4 fertilizer produced an increase of 670 pounds of seed cotton on sandy soil at De Ridder, or from 729 to 1399 pounds; 637 pounds at Calhoun, or from 1067 to 1704; and 533 pounds on silt loam at Crowley over unfertilized land, or from 342 to 875 pounds. The 670 extra pounds at De Ridder, the 637 at Calhoun, and the 533 at Crowley were produced at a fertilizer cost of \$7.95 at each place. The extra pounds at De Ridder were produced at a fertilizer cost of 1.12 cents per pound, the extra pounds at Calhoun at a cost of 1.22 cents, and the extra pounds at Crowley at a cost of 1.4 cents per pound.

Similarly at Baton Rouge, 600 pounds of a 5-8-8 fertilizer per acre on bench land produced 977 pounds of seed cotton

per acre more than unfertilized soil, an increase from 1105 to 2082 pounds; and 600 pounds of 5-8-4 per acre on Oliver silt loam at Sunset produced 687 pounds per acre more than unfertilized soil, an increase from 411 to 1098 pounds. The 977 pounds at Baton Rouge were produced at a fertilizer cost of \$9.56 and the extra 687 pounds at Sunset at a fertilizer cost of \$8.41. The extra pounds at Baton Rouge were produced at a fertilizer cost of 0.97 cents per pound and the extra pounds at Sunset at a fertilizer cost of 1.22 cents per pound.

Assuming the seed cotton to be one-third lint, and based on cost of production figures obtained by the U. S. Department of Agriculture, during 1929, it cost 3.7 cents per pound of seed cotton to produce the unfertilized cotton at Baton Rouge and Calhoun, 5.3 cents per pound at Crowley and Sunset, and 4.7 cents per pound at De Ridder.

Recommendation of an extensive use of fertilizers by Southern cotton growers is based on no other consideration than a sincere conviction that their use will be followed by an increase in yield and quality.

Hardwood Manufacturers Elect

Birmingham, Ala. — The Hardwood Manufacturers Institute, closing its annual meeting at the Thomas Jefferson Hotel here, elected the following officers: George H. Henderson, Ketys, Tex., re-elected president; E. M. Vestal, Knoxville, Tenn., vice-president; Lee Robinson, Mt. Vernon, Ala., second vice-president; H. C. Dewey, Memphis, Tenn., treasurer; J. H. Townshend, Memphis, secretary-manager. Directors include: J. W. Mayhew, Columbus, Ohio; C. A. Bruce, Memphis; B. B. Burns, Huntington, W. Va.; G. E. Reynolds, Albany, Ga.; J. J. Linehan, Cincinnati, Ohio; R. S. Kellogg, Monroe, La.; J. L. Avery, Shreveport, La.; H. L. Sale, Columbia, S. C.; W. A. Delaney, Columbia, Miss.; Fred Arn, Chattanooga, Tenn., and G. N. Allport, Kansas City, Mo.

Dredge Contract Awarded

Birmingham, Ala.—Contract for a big dredge for use by United States Engineers at Galveston, Texas, has been awarded to the Ingalls Iron Works Company, Birmingham. Fabrication of 600 tons of steel produced in this district will be accomplished as soon as possible and the dredge completed at the plant of the Chickasaw Shipbuilding Company, Mobile, Ala., which is partially leased by the Ingalls company. This is the second dredge contract for this company recently, one containing 700 tons of steel having been completed a few weeks ago.

Railroad May Expend \$16,800,000

St. Louis, Mo.—Receivers of the Wabash Railroad are of the opinion that, with a recent loan from the Reconstruction Finance Corporation and savings in labor expenditures, the railroad will be enabled to expend \$16,800,000 for maintenance, additions and betterments. According to Walter S. Franklin, receiver, the program calls for laying 70 miles of rail, use of 600,000 ties, 410,000 yards of additional ballast, and maintenance of equipment. Locomotive shops at Decatur have reopened, employing 1100 men.

2,389,862 Air Passengers

Washington, D. C.—Passengers carried by American civil aircraft in 1931 reached 2,389,862, flying 141,729,107 miles, according to Clarence M. Young, Assistant Secretary of Commerce. Scheduled air lines, including domestic routes and American operated lines into Canada, Mexico, Central and South America carried 522,345 passengers 41,385,987 miles. Of these, domestic scheduled air lines carried 469,981 passengers compared with 374,935 in 1930. Express carried in domestic service totaled 1,320,215 pounds compared with 2,760,207 pounds in 1930, while mail carried totaled 9,097,411 pounds as compared with 7,985,010 in 1930. Payments for carrying air mail amounted to \$19,900,251 in 1931 as compared with \$14,702,656 in 1930. Miscellaneous flying covered 94,343,115 miles in 1931, more than double the operations on scheduled lines, but show a decrease as compared with 1930, when this class of flying covered 106,269,760 miles. Passengers carried in miscellaneous operations numbered 1,867,517 in 1931 as compared with 2,298,341 in 1930.

\$2,000,000 St. Louis Paving

St. Louis, Mo.—Approximately 13 miles of streets are planned for paving in St. Louis this year, at an estimated cost of \$2,012,076, according to W. W. Horner, chief engineer of paving and sewers. This program may be curtailed, however, if conditions prevent the proposed paving of Market street and Natural Bridge avenue, both of which are being widened.

ALEXANDER H. KERR & Co., Sand Springs, Okla., is operating its plant at capacity in anticipation of an increased demand for fruit jars and jelly glasses this spring. It recently dismantled its furnace room building and packing room, and replaced with new steel structures, 80 by 100 feet and 60 by 180 feet, respectively. The new buildings were erected by the Patterson Steel Co., Tulsa, Okla.

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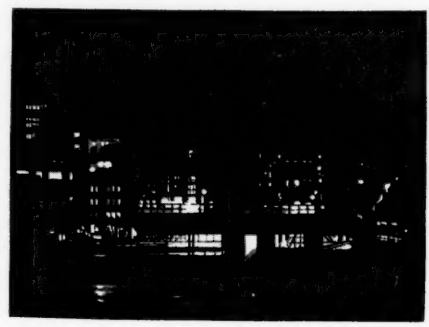
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FINANCIAL NEWS

Bond Issues Proposed

Ala., Tuskegee—City votes May 3 on \$160,000 funding bonds.

Fla., Coral Gables, Miami—City, Vincent D. Wyman, Mayor, advises votes April 12 on proposal to refund entire outstanding indebtedness, amounting as of March 5, to \$9,246,500, by issuing \$4,000,000, 6% 40-yr. refunding bonds; and for balance of the debt, corporate stock secured by pledge of tax sale certificates, special assessment liens and sundry city-owned property, with other miscellaneous minor revenues.

Ky., Fulton—City, Thomas H. Chapman, City Clk., did not sell \$25,000 waterworks refunding bonds. 3-24

La., Bogalusa—City Council passed ordinance calling for issuance of \$107,000 tax anticipation notes.

La., New Orleans—City Comsn. Council adopted ordinance introduced by Mayor T. Semmes Walmsley proposing \$750,000 bond issue for relief of unemployed and calling special election on May 3.

Md., Easton—City, Mayor and Town Council, Ralph A. Townsend, Town Clk., opens bids Apr. 15 for \$45,000, 5%, \$1000 denom. Easton Water Co. redemption bonds of 1932.

Mo., St. Joseph—City Council, T. M. Longmullr, Comptroller, open bids Apr. 15 for \$120,000 block of 5% refunding bonds.

Okla., Shawnee—City soon offer \$200,000 waterworks bonds.

Okla., Tulsa—Tulsa County School Dist. No. 33, J. H. Yearout, Dist. Clk., R. 9, Box 226, opens bids April 22 for \$16,700 school bonds; interest rate to be named by bidder.

Tenn., Lawrenceburg—City Comms. recently passed ordinance calling election for May 12 on \$40,000, not to exceed 6% building bonds.

Tenn., Maryville—City, reported, may call election on power plant bonds.

Tex., Cotulla—La Salle County plans offering for sale, April 16, \$28,671.32 general funding bonds and \$34,678.72 road and bridge funding bonds; not to exceed 6%.

Tex., Edinburg—Hidalgo County Comms. call election on \$6,000,000 refunding bonds.

Tex., El Paso—El Paso County Comms. Court opens bids May 9 for \$105,000 road bonds; Comms. Court already voted to purchase \$190,000 of grand total of \$295,000 for county's sinking fund.

Tex., Ozona—City may vote on \$22,000 sanitary sewer system bonds.

Tex., Palestine—City, O. C. Cutter, City Secretary, has \$20,000 school improvement bonds ready for sale.

Tex., Rosenberg—Rosenberg Independent School Dist. probably vote soon on \$25,000 building bonds.

Va., Parksley—Lee Magisterial Dist., George H. Mapp, Clk., School Bd., opens bids April 13 for \$70,000, \$1000 denom. school building bonds; bidders to state rate of interest they will take bonds at par.

Bond Issues Sold

Ga., Quitman—Dixie Consolidated School Dist. of Brooks County recently sold \$20,000 improvement bonds to Citizens & Southern Co., Atlanta. 11-26-31

Ky., Louisville—Almstedt Bros. exercised option on \$1,500,000, 4½% sewer bonds. 3-24

Mo., Kansas City—Prescott-Wright-Snyder Co., Kansas City, reported, purchased \$128,000, 4½% water bonds, at 100.03.

N. C., Charlotte—Local Government Comsn., Chas. M. Johnson, Dir., Raleigh, sold \$50,000,

6% bond anticipation notes to American Trust Co., Charlotte, at par.

S. C., Columbia—Richland County Comms. sold \$143,000, 6% funding bonds to South Carolina Bank, Columbia. 3-10

Tex., Cleburne—City recently sold \$114,000 bonds to H. C. Burt & Co., Houston.

Tex., Longview—Longview Independent School Dist. sold \$140,000 of \$175,000, 5% bonds; \$65,000 to Rembert National Bank, Longview; \$75,000 to State Bd. of Education.

W. Va., Charleston—State, Wm. G. Conley, Governor, sold \$2,000,000 road bonds to Halsey, Stuart & Co., New York; \$1,900,000 at 4½%, \$100,000 at 4¼% and \$100 premium.

New Financial Corporations

Ark., Bentonville—Benton and Washington County Fruit Growers' Corp., unit of Intermediate Credit Bank, formed by Storm O. Whaley, senator from Benton County, E. P. Knott, of Bank of Bentonville, and others.

N. C., Charlotte—Interstate Securities Corp., capital \$100,000, chartered; J. G. Gullick, Belmont; W. O. Nisbet, Jr., Charlotte.

N. C., Charlotte—Interstate Securities Corp., 401-402 Commercial Bank Bldg., chartered; Jonathan G. Gullick, Pres.; W. Olin Nisbet, Jr., Sec. and Treas.

S. C., Sumter—Palmetto Finance Corp., capital \$10,000, chartered; S. L. Roddey, Pres.; J. J. Riley, Sec.

Okla., Blackwell—Security Bank, capital \$50,000, chartered; Carl E. Haun, Harper Poling.

Okla., Oklahoma City—Midwest Indemnity & Insurance Co., capital \$400,000, incorporated; H. W. Trekel, Earl R. Taylor, 1720 N. E. 15th St.

Okla., Waukomis—Waukomis State Bank, capital \$15,000, chartered; R. N. Brittan, John R. Camp.

S. C., Darlington—C. M. Ward, R. H. and D. A. Cohen on committee for organizing new bank.

S. C., Wagener—Iodine State Bank, capital \$10,000, chartered; A. L. Corbett, Pres.; H. E. Holley, Cashier.

Tex., Odessa—First National Bank, capital \$25,000, chartered; T. G. Hendrick, Pres.; Wickliffe Skinner, Cashier.

Beckley National Bank, Joe L. Smith, Pres., Beckley, W. Va., and National Exchange Bank, W. G. Agee, Pres., Beckley, merged as Beckley National Exchange Bank.

Citizens State Bank, W. H. Irvin, Pres., Houston, Tex., acquired Katy State Bank, W. C. Stockdick, Pres., Katy, Tex.

Citizens Savings Bank, Accomac, Va., merged with Citizens Savings Bank, Warner Ames, Pres., Onancock, Va.

First National Bank, E. P. Ruhmann, Pres., Kenedy, Tex., and Nichols National Bank, J. W. Nichols, Pres., Kenedy, merged as First-Nichols National Bank of Kenedy.

Peoples Exchange Bank, Russellville, Ky., reorganized with John W. White, Pres.; Ed C. Bradley, Cashier and Secretary.

American Rolling Mill Company

Net sales of the American Rolling Mill Company, Middletown, Ohio, and subsidiaries, for the year ended December 31, 1931, amounted to \$39,907,796, as compared with \$53,651,626 for 1930; costs and expenses, \$36,175,615, as compared with \$50,328,778; depreciation, maintenance, etc., \$4,989,153 compared with \$2,012,519, showing an operating loss of \$1,256,962 for 1931, as compared

with an operating loss of \$1,310,329 for 1930. Consolidated net loss for 1931 was \$3,098,445 after depreciation, interest and taxes, as compared with \$114,094 for 1930. Capital surplus as of December 31, 1931, amounted to \$10,031,865.

Pennsylvania Dividends Above Billion

Said to be the first railroad in the world to go above the billion dollar mark in the payment of cash dividends, the Pennsylvania Railroad distributed \$42,674,591 to stockholders last year, bringing total cash returns paid by the company on its stock since it was chartered in 1846 to \$1,031,246,238. Stockholders have received a return on their investment in every calendar year since 1847, the longest unbroken dividend record among the railroads of the United States. Dividends paid last year represented a return of 6½ per cent of the par value of outstanding stock.

Cannon Mills Increase Net

Net income of the Cannon Mills Co., Kannapolis, N. C., and subsidiaries, for 1931 amounted to \$2,088,917 after depreciation, interest, federal taxes, etc., the equivalent of \$2.09 a share on 1,000,000 no-par shares of capital stock. This compares with a net of \$1,544,634 in 1930, or \$1.54 a share. As of December 31, 1931, current assets were \$20,181,954 and current liabilities \$1,968,223, compared with current assets of \$20,125,889 and current liabilities of \$1,173,725 on December 31, 1930. Cash and marketable securities, at market value, amounted to \$8,239,769 as of December 31, 1931, compared with \$9,034,103 as of December 31, 1930.

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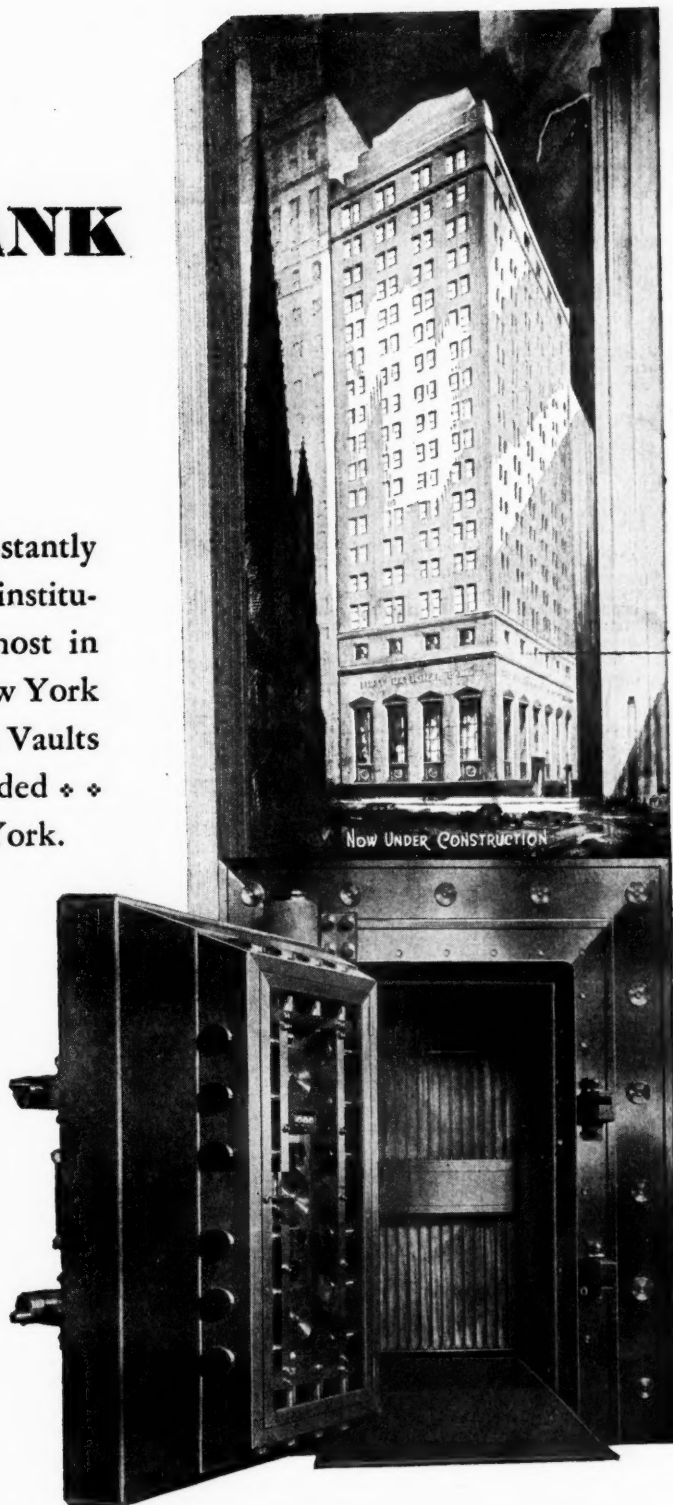
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PROPOSALS

BOND ISSUES

BUILDINGS

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GOOD ROADS



Bids close April 20, 1932.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., March 23, 1932.—Sealed bids, in duplicate subject to the conditions contained herein will be publicly opened in this office at 3 p. m., April 20, 1932, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Coatesville, Pa. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding six sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 25, 1932.

TREASURY DEPARTMENT. Office of the supervising architect, Washington, D. C., March 28, 1932.—Sealed Bids, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 25, 1932, for furnishing all labor and materials and performing all work for the construction (except elevators, dumbwaiters and lighting fixtures) of the U. S. post office, court house, etc., at Meridian, Miss. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding six sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 16, 1932.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., April 2, 1932.—SEALED BIDS in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., May 16, 1932, for furnishing all labor and materials and performing all work for the construction (except elevators, book truck lift and electric dumbwaiters) of the U. S. department of labor building, interstate commerce commission building and connecting wing, labor-interstate commerce commission buildings at Washington, D. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Not exceeding 6 sets of drawings and specifications will be furnished to the prospective bidders upon application therefore, when such application is accompanied by a deposit of \$100.00 for each set to insure its return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be acceptable. Each bid must be accompanied by a statement of facts in detail of the business and technical organization of the bidder available for the contemplated work, including financial resources and building experience, and no consideration will be given to a bid which is not accompanied by said statement. The right is reserved to reject any bid where an investigation or the evidence submitted by such bidder does not satisfy the contracting officer that such bidder is qualified to carry out properly the terms of the contract. In awarding a contract, consideration will not be given to bidders who have not constructed within the last six years at least one building comparable with the project for which the bid is submitted. The successful bidder will be required to furnish a performance bond of at least 50 per cent of the contract price. JAS. A. WETMORE, Acting Supervising Architect.

GENERAL INFORMATION

About Proposal Advertising in Manufacturers Record

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The Daily Construction Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened or when daily insertions are necessary to meet legal requirements. The rate is the same for both publications—35 cents a line each insertion.

Bids close April 18, 1932.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., March 21, 1932.—Sealed bids, in duplicate subject to the conditions contained herein will be publicly opened in this office at 3 p. m., April 18, 1932, for furnishing all labor and materials and performing all work for furnishing and installing fixed permanent equipment for a cafeteria at the U. S. post office, court house, and custom house, Louisville, Ky. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931, (Public No. 798). Drawings and specifications may be obtained from the custodian at the building or at this office in the discretion of the supervising architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 6, 1932.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., March 25, 1932.—SEALED BIDS in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., May 6, 1932, for furnishing all labor and materials and performing all work for the construction, completion contract, (except elevators and work under contracts Nos. 1 and 2) of the U. S. department of agriculture extensible building at Washington, D. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Not exceeding six sets of drawings and specifications will be furnished to the prospective bidders upon application therefore, when such applications is accompanied by a deposit of \$50.00 for each set to insure its return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be acceptable. Each bid must be accompanied by a statement of facts in detail of the business and technical organization of the bidder available for the contemplated work, including financial resources and building experience, and no consideration will be given to a bid which is not accompanied by said statement. The right is reserved to reject any bid where an investigation or the evidence submitted by such bidder does not satisfy the contracting officer that such bidder is qualified to carry out properly the terms of the contract. In awarding a contract, consideration will not be given to bidders who have not constructed within the last six years at least one building comparable with the project for which the bid is submitted. The successful bidder will be required to furnish a performance bond of at least 50 per cent of the contract price. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 26, 1932.

TREASURY DEPARTMENT. Office of the Supervising Architect, Washington, D. C., March 21, 1932.—Sealed bids, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 26, 1932, for furnishing all labor and materials and performing all work for construction (except elevators and lighting fixtures) of the U. S. post office and court house at Knoxville, Tenn. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding six sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$50 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 29, 1932.

TREASURY DEPARTMENT. Office of supervising architect, Washington, D. C., March 30, 1932.—SEALED BIDS, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 29, 1932, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Bucyrus, Ohio. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding 3 sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$15.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 19, 1932.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the Veterans Administration, Room 764, Arlington Building, Washington, D. C., until 2.30 P. M., April 19, 1932, and then publicly opened for furnishing all labor and materials and performing all work required for constructing and finishing complete at VETERANS ADMINISTRATION HOSPITAL, PERRY POINT, MARYLAND, NURSES QUARTERS AND ATTENDANTS QUARTERS. This work will include excavating, roads, walks, grading, reinforced concrete, hollow tile, cast stone, slate stair treads, marble work, terrazzo, floor and wall tile, rubber tile, linoleum floors, iron work, steel stairs, steel shelving and partitions, slate, metal and built-up roofing, roof ventilators, metal lathing, plastering, stucco, carpentry, metal weatherstrips, insect screens, painting, glazing, hardware, plumbing, heating and ventilating, electrical work, and outside service connections and such other items as shown or specified. Bids will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making awards, the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Administrator, drawings and specifications may be obtained upon application to the Construction Service, Room 764 Arlington Building, Washington, D. C. While no deposit will be necessary, return of the drawings and specifications within ten days after date of opening bids will be required. In case no bid is to be submitted, the return of plans and specifications, as soon as this fact has been determined and before the date for opening bids, is requested. Compliance with the requirement and with the request indicated will be considered in connection with future applications for drawings and specifications. GEORGE E. IJAMS, Assistant Administrator. March 19, 1932.

Bids close May 2, 1932.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., April 1, 1932.—**SEALED BIDS**, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., May 2, 1932, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Dover, Del. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor and provided a deposit of \$15.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 11, 1932.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., March 11, 1932.—**SEALED BIDS** in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 11, 1932, for furnishing all labor and materials and performing all work for the construction (except elevator) of the surgical unit and laundry building approach work, underground service lines, laundry equipment, etc., of the U. S. marine hospital at Memphis, Tenn. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798) and executive order of January 19, 1932. Drawings and specifications, not exceeding 3 sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close May 3, 1932.

SEALED BIDS, in triplicate, subject to the conditions contained herein, will be received by the Veterans Administration, Room 764, Arlington Building, Washington, D. C., until 2:30 P. M., May 3, 1932, and then publicly opened for furnishing all labor and materials and performing all work required for constructing and finishing complete at VETERANS ADMINISTRATION HOME, DANVILLE, ILLINOIS, HOSPITAL BUILDING NO. 1. This work will include excavating roads, walks and drainage, reinforced concrete, hollow tile, brickwork, cut stone, slate stair treads, marble work, terrazzo, floor and wall tile, rubber tile, compressed asphalt tile and linoleum floors, iron work, steel stairs, steel shelving, cabinets and partitions, slate, metal and built-up roofing, roof ventilators, metal lathing, plastering, sound deadening, carpentry, metal weatherstrips, insect screens, platform scales, painting, glazing, hardware, plumbing, refrigerating, heating and ventilating, electrical work, electric elevators, and outside service connections, and such other items as shown or specified. **SEPARATE BIDS** will be received for (a) General Construction; (b) Plumbing, Heating, Electrical Work; (c) Electric Elevators; and (d) Refrigerating Plant; all as set forth on bid form. Bids will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract and in making awards, the records of bidders for expedition and satisfactory performance on contracts of similar character and magnitude will be carefully considered. At the discretion of the Administrator, drawings and specifications may be obtained upon application to the Construction Service, Room 764, Arlington Building, Washington, D. C. While no deposit will be necessary, return of the drawing and specifications within ten days after date of opening bids will be required. In case no bid is to be submitted, the return of plans and specifications, as soon as this fact has been determined and before the date for opening bids, is requested. Compliance with the requirement and with the request indicated will be considered in connection with future applications for drawings and specifications. **GEORGE E. JAMS**, Assistant Administrator. March 26, 1932.

Bids close April 21, 1932.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., March 30, 1932.—**SEALED BIDS**, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 21, 1932, for furnishing all labor and materials and performing all work for excavations and foundations of the U. S. court house (new) at New York, N. Y. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 19, 1932.

DEPARTMENT OF INTERIOR, Washington, March 23, 1932. **SEALED BIDS** in duplicate, subject to plans and specifications therefor, will be received at the Interior Department, Washington, D. C., until 2 p. m., Tuesday, April 19, 1932, for the construction and completion of a clinics building at Freedmen's Hospital, Washington, D. C. Drawings and specifications may be obtained upon application to the Department. A certified check for \$50 payable to the Secretary of the Interior will be required as security for the safe return of plans within ten days after date of opening proposals. Guaranty will be required with each bid to insure execution of the contract, and no bid will be considered unless so guaranteed. The bidders may at their option furnish a guaranty bond, certified check or United States bonds for not less than 10 per cent of the total bid. The right is reserved to reject any or all bids, waive any informality in bids received and accept or reject any item of a bid, unless such bid is qualified by specific limitation. Envelopes containing bids must be sealed, addressed to Secretary of the Interior, Room 6119 Interior Department Building, Washington, D. C., and marked "Bid for construction of clinics building, Freedmen's Hospital, Washington, D. C., to be opened April 19, 1932." **John H. Edwards**, Assistant Secretary.

Bids close April 18, 1932.

Bridge

DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building bridge as follows:

Anne Arundel County, Contract No. AA-117-77—Steel and concrete bridge, approximately 2200 feet in length, substructure of timber piling supporting cylinder piers, and including a steel swing span providing a channel opening of 70 feet, with all necessary operating equipment, operator's house and approaches, over South River on the road from Camp Parole to Mt. Zion will be received by the State Roads Commission at its offices, Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 18th day of April, 1932, at which time and place they will be publicly opened and read. **PREQUALIFICATION OF BIDDERS WILL BE REQUIRED.**

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00 for each separate project, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check, payable to the State Roads Commission of Maryland, as required by Sec. 6, Chapter 539, Acts of 1931, of the amount as set forth in the proposal form.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 28th day of March, 1932.

G. CLINTON UHL, Chairman.
L. H. STEUART, Secretary.

Bids close May 5, 1932.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., March 24, 1932.—**SEALED PROPOSALS** are invited for the sale of ink scrapings, and postage stamp and internal revenue paper trimmings, and for the cleaning of windows during the fiscal year beginning July 1, 1932. Proposals to be received not later than 2 p. m. Thursday, May 5, 1932. Blank forms with specifications for proposals for the several schedules and further information will be furnished on application to **A. W. HALL**, Director.

Bids close April 19, 1932.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., March 19, 1932.—**SEALED BIDS**, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., April 19, 1932, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Nyack, N. Y. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 12, 1932.

Maryland Highway Work

DEPARTMENT OF PUBLIC WORKS
STATE OF MARYLAND
STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building five sections of State Highway as follows:

Baltimore County, Contract No. B-240-711—Federal Aid Project No. 138-A Reopened—One section of State Highway for the elimination of curves on Devils Elbow on the National Pike east of Ellicott City for a distance of 0.61 mile (Concrete)

Carroll County, Contract No. CI-93-52—One section of State Highway along the Marston Road from the end of Contract No. CI-74 at Marston toward the Ridge Road for a distance of 1.29 miles (Concrete)

Howard County, Contract No. Ho-111-34—One section of State Highway along the Jonestown-Bentons Corner Road from the end of Contract No. Ho-106 at Jonestown to Bentons Corner on the Montgomery Road for a distance of 1.29 miles (Macadam)

Queen Anne's County, Contract No. Q-76-24—One section of State Highway along Queen Anne-Ruthsburg Road from the end of Contract No. Q-67 to Ruthsburg, a distance of 3.52 miles (Concrete)

Worcester County, Contract No. Wo-117-12—One section of State Highway along Philadelphia Avenue in Ocean City from Worcester Avenue to Ninth Street, a distance of 0.88 mile (Concrete)

will be received by the State Roads Commission at its offices, Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 12th day of April, 1932, at which time and place they will be publicly opened and read. **PREQUALIFICATION OF BIDDERS WILL BE REQUIRED.**

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00 for each separate project, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check, payable to the State Roads Commission of Maryland, as required by Sec. 6, Chapter 539, Acts of 1931, of the amount as set forth in the proposal form.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 29th day of March, 1932.

G. CLINTON UHL, Chairman.
L. H. STEUART, Secretary.

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PAUL B. EATON, Patent Attorney
1408-R Johnston Bldg., Charlotte, N. C.
941 Munsey Building, Washington, D. C.
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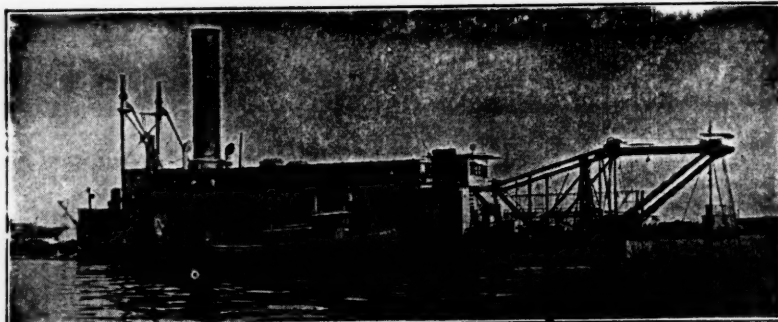
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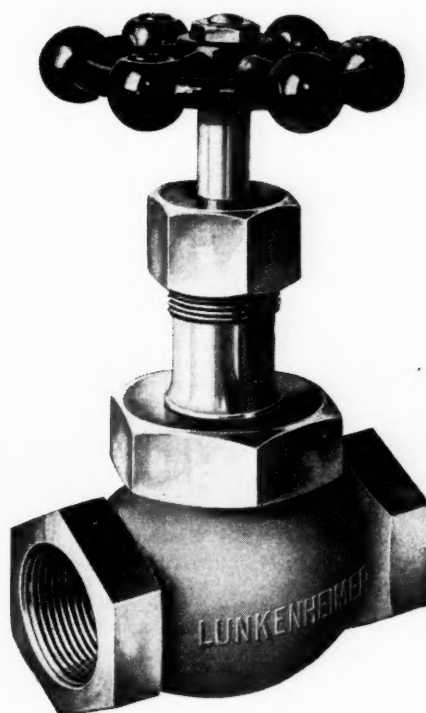


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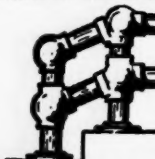
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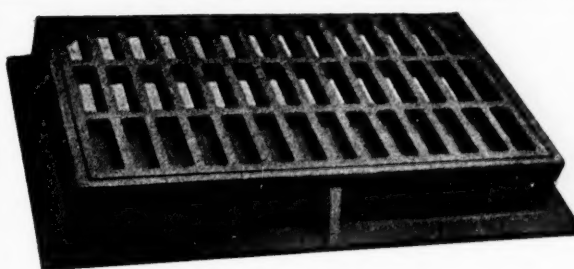
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Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Partridge, Arthur S., St. Louis, Mo.
Rockford Power Machy. Co., Rockford, Ill.

(Generators, Motors, etc., Used.)

Delta Equipment Co., Philadelphia, Pa.
Electric Service Co., Cincinnati, Ohio.
General Electric Co., Schenectady, N. Y.
O'Brien Machinery Co., The, Phila., Pa.
Reading Engineering Wks., Reading, Pa.
Rockford Power Machy. Co., Rockford, Ill.

(Repairing (Motors, Generators, etc.))

Electric Service Co., Cincinnati, Ohio.

ELECTRIC LIGHTING.

General Electric Vapor Lamp Co., Hoboken, N. J.
Westinghouse Lamp Co., New York City.

ELECTRIC SHOVELS (See Shovels.)**ELECTRICAL MACHINERY**

(Generators, Motors, etc., New.)
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

ELEVATORS (Electric.)

Millner Co., St. Louis, Mo.

(Hand and Belt Power.)

Millner Co., St. Louis, Mo.

ENGINEERS (Airports.)

Lockwood Greene Engrs., Inc., New York.

(Appraisal.)

Lockwood Greene Engrs., Inc., New York.
Main, Inc., Chas. T., Boston, Mass.
White Engineering Corp., J. G., New York.

(Bridge.)

Gardner & Howe, Memphis, Tenn.
Hardaway Contracting Co., Columbus, Ga.
Hedrick, Inc., Ira G., Hot Springs, Nat'l Park, Ark.

(Chemical.)

Dow & Smith, New York, N. Y.
Pearl Laboratories, Birmingham, Ala.

(Civil.)

Gardner & Howe, Memphis, Tenn.
Harrub Engr. Co., C. N., Nashville, Tenn.
Hills and Youngberg, Jacksonville, Fla.

(Consulting.)

Barstow & Co., W. E., New York City.
Converse & Co., J. B., Mobile, Ala.
Engineering Service Corp., Houston, Tex.
Goder, Joseph, Chicago, Ill.

(Cost.)

Ernst & Ernst, New York, N. Y.

(Dams.)

Alpaugh & Sons, Chas. W., Manassas, Va.
Barstow & Co., W. S., New York City.
Byllesby Engineering and Management Corp., Chicago, Ill.

(Drainage and Irrigation.)

Hills and Youngberg, Jacksonville, Fla.
Huey, S. E., Monroe, La.

(Efficiency.)

Ernst & Ernst, New York, N. Y.

(Electrical.)

Engineering Service Corp., Houston, Tex.
Lee Engineering Corp., William C., Charlotte, N. C.
Lockwood Greene Engrs., Inc., New York.

(Electric Light and Power.)

Barstow & Co., W. S., New York City.
Byllesby Engineering and Management Corp., Chicago, Ill.

Hall, J. Henry, Lexington, Ky.
Lee Engineering Corp., William S., Charlotte, N. C.
Main, Inc., Chas. T., Boston, Mass.
White Engineering Corp., J. G., New York, N. Y.
Wiley & Wilson, Lynchburg, Va.

(Gas.)

Byllesby Engineering and Management Corp., Chicago, Ill.
Huey, S. E., Monroe, La.

(Geological.)

Fröhling & Robertson, Inc., Richmond, Va.

(Harbor Improvements.)

Engineering Service Corp., Houston, Tex.

(Heating.)

Wiley & Wilson, Lynchburg, Va.

(Hydraulic.)

Alpaugh & Sons, Chas. W., Manassas, Va.
Main, Inc., Chas. T., Boston, Mass.
Wiley & Wilson, Lynchburg, Va.

(Hydro-electric.)

Alpaugh & Sons, Chas. W., Manassas, Va.
Barstow & Co., W. S., New York City.
Byllesby Engineering and Management Corp., Chicago, Ill.

(Ice and Refrigerating.)

Engineering Service Corp., Houston, Tex.

(Industrial Plants.)

Barstow & Co., W. S., New York City.
Conner, Older & Quinlan, Inc., Chicago.
Converse & Co., J. B., Mobile, Ala.

(Inspection and Tests.)

Dow & Smith, New York, N. Y.
Fröhling & Robertson, Inc., Richmond, Va.
Hunt Co., Robert W., Chicago, Ill.

(Lighting.)

Byllesby Engineering and Management Corp., Chicago, Ill.
General Electric Vapor Lamp Co., Hoboken, N. J.
Westinghouse Lamp Co., New York City.

(Mechanical.)

Engineering Service Corp., Houston, Tex.
Lee Engineering Corp., William S., Charlotte, N. C.
Lockwood Greene Engrs., Inc., New York.

(Mining. See Engineers, Geological.)

Converse & Co., J. B., Mobile, Ala.
Lockwood Greene Engrs., Inc., New York.

(Municipal.)

Conner, Older & Quinlan, Inc., Chicago.
Dow & Smith, New York, N. Y.
Harrub Engr. Co., C. N., Nashville, Tenn.

(Paving and Roads.)

Dow & Smith, New York, N. Y.
Harrub Engr. Co., C. N., Nashville, Tenn.

(Printing and Newspaper Plants.)

Lockwood Greene Engrs., Inc., New York.

(Public Service Properties.)

Barstow & Co., W. S., New York City.
Byllesby Engineering and Management Corp., Chicago, Ill.

(Railroad.)

Huey, S. E., Monroe, La.

(Reinforced Concrete Bridges, Buildings, etc.)

Gardner & Howe, Memphis, Tenn.
Lockwood Greene Engrs., Inc., New York.

(Sanitary.)

Whitman, Requaard & Smith, Balto., Md.
Wiley & Wilson, Lynchburg, Va.

(Sewage Disposal Plants.)

McCrory Co., The J. B., Atlanta, Ga.
Wiedeman and Singleton, Inc., Atlanta.

(Sewerage and Waterworks.)

Conner, Older & Quinlan, Inc., Chicago.
Hall, J. Henry, Lexington, Ky.

(Sewerage and Waterworks.)

Hardaway Contracting Co., Columbus, Ga.

Harb. Eng. Co., C. N., Nashville, Tenn.
Hills and Youngberg, Jacksonville, Fla.
White Eng. Corp., J. G., New York, N. Y.
Wideman & Singleton, Inc., Atlanta, Ga.
Wiley & Wilson, Lynchburg, Va.

—(Structural.)
Hills and Youngberg, Jacksonville, Fla.
Boyer, S. E., Monroe, La.
Lockwood Greene Engrs., Inc., New York.
Sare, Van Rensselaer P., Baltimore, Md.
Virginia Bridge & Iron Co., Roanoke, Va.

—(Textile Mills.)
Lockwood Greene Engrs., Inc., New York.
Main, Inc., Chas. T., Boston, Mass.
Stirring & Co., J. E., Greenville, S. C.

—(Ventilating and Heating.)
Wiley & Wilson, Lynchburg, Va.
 —(Water Supply.)
Wiley & Wilson, Lynchburg, Va.

ENGINES (Compressed Air.)
Duke Engine Co., Grand Haven, Mich.
 —(Diesel Type.)
Fairbanks, Morse & Co., Chicago, Ill.
Superior Engine Co., Springfield, O.

—(Gas and Gasoline.)
Berling Engine Co., Buffalo, N. Y.
 —(Marine.)
Fairbanks, Morse & Co., Chicago, Ill.

—(Steam.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Schofield's Sons Co., J. S., Macon, Ga.

ENVELOPES.
Young & Selden Co., Baltimore, Md.

ESTIMATORS (Building & Construction.)
Martin, Joe B., Washington, D. C.
Spring, Chas. Herbert, Greensboro, N. C.

EXCAVATING MACHINERY.
Austin-Western Road Machinery Co., Chicago, Ill.
Bay City Shovel, Inc., Bay City, Mich.
Bucyrus-Erie Co., So. Milwaukee, Wis.
National Equipment Corp., (Koehring, Parsons), Milwaukee, Wisconsin.
Northwest Engineering Co., Chicago, Ill.
Owens Bucket Co., The, Cleveland, Ohio.

EXCAVATORS (Clamshell and Orange Peel.)
Northwest Engineering Co., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.

—(Dragline. See Dragline Excavators.)
 —(Trench.)
Bay City Shovel, Inc., Bay City, Mich.
Bucyrus-Erie Co., So. Milwaukee, Wis.
Ohio Power Shovel Co., Lima, Ohio.

EXPANSION JOINTS (Road and Street.)
Carey Co., Philip, Lockland, Cincinnati, Ohio.

EXPLOSIVES.
Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

FACTORY Management Systems.
Ernst & Ernst, New York, N. Y.

FEED-WATER HEATERS and Purifiers.
American Water Softener Co., Phila., Pa.
International Filter Co., Chicago, Ill.

FENCING, ENTRANCE GATES (Iron, Steel and Wire.)
American Steel and Wire Co., Balto., Md.
Atlantic Steel Co., Atlanta, Ga.
Cyclone Fence Co., Waukegan, Ill.

FENCING (Field and Industrial, Wire Woven.)
American Steel and Wire Co., Balto., Md.
Cyclone Fence Co., Waukegan, Ill.
Gulf States Steel Co., Birmingham, Ala.

FERTILIZER Mixing Plants.
Gruendler Crusher & Pulverizer Co., St. Louis, Mo.

FILTER (For Domestic and Industrial Purposes.)
American Water Softener Co., Phila., Pa.
Beharash & Co., E. W., Kansas City, Mo.
International Filter Co., Chicago, Ill.
Roberts Filter Mfg. Co., Darby (Phila.).

FINANCING.
Electric Bond & Share Co., New York.

FIREPROOF Building Material.
Bannon Pipe Co., Louisville, Ky.
 —(Doors and Shutters.)
Wilson Corp., The J. G., New York City.

FITTINGS (Wire Rope.)
American Steel & Wire Co., Chicago, Ill.
Roebbling's Sons Co., John A., Trenton, N. J.

FLANGES (Iron and Steel.)
Dart Mfg. Co., E. M., Providence, R. I.
U. S. Pipe & Foundry Co., Burlington, N. J.

FLOOR (Asphalt Mastic.)
Barber Asphalt Co., Philadelphia, Pa.
 —(Northern Hard Maple.)
Holt Hardwood Co., Oconto, Wis.
 —(Open Steel.)
Kerlow Steel Flooring Co., Jersey City, N. J.

FLOOR Plates and Stair Treads.
Central Iron & Steel Co., Harrisburg, Pa.
Osborne, Earl N., Roanoke, Va.

FLOORING (Laid and Finished.)
Osborne, Earl N., Roanoke, Va.
FORMED PRODUCTS (Roofing.)
American Rolling Mill Co., Middletown, O.

FOUNDRIES and Machine Shops.
General Machine Works, York, Pa.
Glamorgan Pipe & Fdy. Co., Lynchburg, Va.
Richmond Foundry & Mfg. Co., Richmond, Va.

FOUNDRY Equipment and Supplies.
Hill & Griffith Co., Cincinnati, O.

FOUNDRY FACINGS (Talc and Soapstone.)
Hill & Griffith Co., Cincinnati, O.

FURNACES (Water-Cooled.)
Fuller Lehigh Co., Fullerton, Pa.

GALVANIZED Products.
Bessemer Galvanizing Works, Birmingham, Ala.
Cattle & Bros., Jos. P., Philadelphia, Pa.
Enterprise Galvanizing Co., Phila., Pa.
 —Steel and Iron.
American Rolling Mill Co., Middletown, O.
American Sheet & Tin Plate Co., Pittsburgh, Pa.

GAS (Domestic, Industrial Use.)
American Gas Assn., New York, N. Y.
Associated Gas & Elec. System, New York, N. Y.

GAS HOLDERS.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Chicago Bridge & Iron Wks., Birmingham, Mich.
McClintic-Marshall Corp., Bethlehem, Pa.

GAS PRODUCERS.
Wood & Co., R. D., Philadelphia, Pa.

GASOLINE and KEROSENE.
Gulf Refining Co., Pittsburgh, Pa.

GEARS.
Earle Gear & Machine Co., Phila., Pa.
General Electric Co., Schenectady, N. Y.

GENERATORS, MOTORS (New.)
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
 —(Used.)
Guyon Machine Shops, Logan, W. Va.
O'Brien Machinery Co., Phila., Pa.

GEOLOGISTS. (See Engineers Geological.)

GLASS. (Window.)
Pittsburgh Plate Glass Co., Pittsburgh.

GRADERS (Elevating.)
Austin-Western Road Machinery Co., Chicago, Ill.
Caterpillar Tractor Co., Peoria, Ill.
Gallon Iron Wks. & Mfg. Co., Gallon, O.

GRANITE (Building and Monumental.)
Gardner Brothers, Salisbury, N. C.
North Carolina Granite Corp., The Mount Airy, N. C.

GRATES and Grate Bars.
Schofield's Sons Co., J. S., Macon, Ga.

GRATING (Area, Flooring, Sidewalk.)
Kerlow Steel Flooring Co., Jersey City, N. J.

GRAVEL (Roofing and Road.)
American Limestone Co., Knoxville, Tenn.
Arundel Corp., The, Baltimore, Md.
Borley & Co., W. W., Roanoke, Va.
Friend & Co., Inc., Petersburg, Va.
Georgia Sand & Gravel Co., Augusta, Ga.

GREASE CUPS.
Lunkenheimer Co., The, Cincinnati, O.

GRILLES (Brass, Bronze, Steel, etc.)
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.

GRINDERS WHEELS.
Carborundum Co., Niagara Falls, N. Y.

GUARD RAIL (Road.)
National Traffic Guard Co., Atlanta, Ga.

GUNITE CONSTRUCTION.
Gunite Conc. & Constr. Co., Kansas City.
Gunite Constr. Co., New York City.

GUNPOWDER.
Du Pont de Nemours & Co., E. I., Wilmington, Del.

GUNS (Hydraulic.)
Georgia Iron Works, Augusta, Ga.

HANGARS (Airplane.)
Ingalls Iron Works, Birmingham, Ala.

HARBOR IMPROVEMENTS.
Arundel Corp., Baltimore, Md.
Atlantic, Gulf & Pacific Co., New York.

HEATERS (Asphalt.)
Honhorst Co., Jos., Cincinnati, O.

HEATING Apparatus (Engineers and Contractors.)
Poe Piping & Heating Co., Greenville, S. C.

HOISTS (Chain.)
Cleveland Crane & Engr. Co., Wickliffe, O.
Wright Mfg. Co., Bridgeport, Conn.
 —(Electric, Gasoline.)
Duke Engine Co., Grand Haven, Mich.
 —(Steam.)
Duke Engine Co., Grand Haven, Mich.

HOTELS.
Southern Hotel, The, Baltimore, Md.

HYDRANTS (Fire.)
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Myers & Bros. Co., The, F. E., Ashland, Ohio.
Wood & Co., R. D., Philadelphia, Pa.

HYDRO - ELECTRIC POWER COMPANIES (Offering Industrial and Commercial Opportunities.)
Appalachian Electric Power Co., Roanoke, Va.
Crisp County Power Commission, Cordele, Ga.
Seaboard Public Service Co., Alexandria, Va.
Texas Power & Light Co., Dallas, Texas.

INCINERATORS.
Brooks-Fisher Co., Atlanta, Ga.
D-N Corporation, Winston-Salem, N. C.
Goder, Joseph, Chicago, Ill.

INCORPORATORS.
Delaware Registration Trust Co., Wilmington, Del.

INSULATING Materials
General Electric Co., Schenectady, N. Y.
 —Quilt.
Cabot, Inc., Samuel, Boston, Mass.

INVESTMENT SECURITIES.
Electric Bond & Share Co., New York.

IRON.
 —(Ingot, for Culverts, etc.)
American Rolling Mill Co., Middletown, O.

JAIL CELLS.
Roanoke Iron & Bridge Wks., Roanoke, Va.

JOINTS (Pipe.)
Leadite Co., Philadelphia, Pa.

KETTLES (Pavers and Roofers.)
Honhorst Co., Jos., Cincinnati, O.

LADDERS (Rolling.)
Myers & Bros. Co., The, F. E., Ashland, O.

LAMPS (Incandescent.)
General Electric Vapor Lamp Co., Hoboken, N. J.
Western Electric Co., New York, N. Y.
Westinghouse Lamp Co., New York City.

LIGHTING (Factory and Mill.)
General Electric Vapor Lamp Co., Hoboken, N. J.
Westinghouse Lamp Co., New York City.

—Fixtures (Electric.)
Western Electric Co., New York City.
Westinghouse Lamp Co., New York City.

LININGS (Flue, Fire Clay.)
Lee Clay Products Co., Clearfield, Ky.
Owensboro Sewer Pipe Co., Owensboro, Ky.
 —(Tube Mill.)
Fuller Lehigh Co., Fullerton, Pa.

LITHOGRAPHERS and ENGRAVERS.
Smith & Son Co., Oscar T., Balto., Md.
Young & Selden Co., Baltimore, Md.

LOADING and UNLOADING MACHINERY (Portable.)
Northwest Engineering Co., Chicago, Ill.

LOCOMOTIVES. (Gasoline.)
Whitcomb Locomotive Co., Rochelle, Ill.
 —(Industrial.)
Southern Iron & Equipment Co., Atlanta.
Whitcomb Locomotive Co., Rochelle, Ill.
 —(Mining.)
Whitcomb Locomotive Co., Rochelle, Ill.
 —(Railway.)
Southern Iron & Equipment Co., Atlanta.
Whitcomb Locomotive Co., Rochelle, Ill.

LUBRICANTS.
Gulf Refining Co., Pittsburgh, Pa.

LUBRICATORS (Force Feed.)
Lunkenheimer Co., The, Cincinnati, O.

LUMBER (Creosoted.)
Amer. Creosote Wks., Inc., New Orleans.
Atlantic Creosoting Co., Norfolk, Va.
Ayer & Lord Tie Co., Inc., Chicago.
Century Wood Preserving Co., Balto., Md.
Eppinger & Russell Co., New York, N. Y.
Gulf States Creos. Co., Hattiesburg, Miss.
National Lumber & Creosoting Co., Texarkana, Ark.-Tex.
 —(Hardwoods, Cypress, etc.)
Reynolds Bros. Lbr. Co., Albany, Ga.
 —(Heavy Construction, Pitch, Pine, etc.)
Reynolds Bros. Lbr. Co., Albany, Ga.

MACHINERY (Special.)
Bertsch & Co., Cambridge City, Ind.
Earle Gear & Machine Co., Phila., Pa.
General Machine Works, York, Pa.
Gerding Bros., Cincinnati, O.

MACHINERY and Supplies (New and Used.)
Cincinnati Mehry & Supply Co., Cincinnati, O.
Electric Service Co., Cincinnati, Ohio.
Guyon Machine Shops, Logan, W. Va.
Marine Metal & Supply Co., New York.
O'Brien Machinery Co., The, Phila., Pa.
Partridge, Arthur S., St. Louis, Mo.
Reading Engineering Wks., Reading, Pa.

MACHINE TOOLS. (Used.)
Delta Equipment Co., Philadelphia, Pa.
O'Brien Machinery Co., Philadelphia, Pa.

MAIL CHUTES.
Cutler Mail Chute Co., Rochester, N. Y.

MARBLE (Producers and Manufacturers.)
Georgia Marble Co., The, Tala, Ga.

METAL Cutting Machinery.
Earle Gear & Machine Co., Phila., Pa.

METAL STAMPING.
Gerding Bros., Cincinnati, O.

MIXERS (Hot.)
National Equip. Corp., (Koehring, T. L. Smith, Kwik-Mix), Milwaukee, Wis.
 —(Plaster and Mortar.)
Dunning & Boschert Press Co., Syracuse, N. Y.
Jaeger Machine Co., Columbus, Ohio.

MOTORS (Electric.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Armstrong & Bros. Co., R. S., Atlanta, Ga.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Western Electric Co., New York City.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

MOTOR TRUCKS.
International Harvester Co. of America, Inc., Chicago, Ill.

NAILS (Cut.)
Reading Iron Co., Reading, Pa.

NAILS and Spikes.
American Steel & Wire Co., Balto., Md.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

OIL (Fuel and Gas.)
Gulf Refining Co., Pittsburgh, Pa.

—Cups.
Lunkenheimer Co., The, Cincinnati, O.

ORE-WASHING MACHINERY.
Georgia Iron Works, Augusta, Ga.

ORNAMENTAL Bronze Work.
Heath Co., J. S., Waukegan, Ill.

ORNAMENTAL Iron Work.
Austin Bros. Bridge Co., Atlanta, Ga.
Dietrich Bros., Baltimore, Md.
Roanoke Iron & Bridge Wks., Roanoke, Va.
Snead Architectural Iron Works, Louisville, Ky.
Virginia Bridge & Iron Co., Roanoke, Va.

ORNAMENTAL Metal Work.
(Bronze, Iron, Steel, etc.)
Cincinnati Mfg. Co., Cincinnati, O.

PAINT (Preservative.)
Cabot, Inc., Samuel, Boston, Mass.

PANELBOARDS.
Adam Electric Co., Frank, St. Louis.

PARTITIONS (Sectionfold, Rolling, Wood.)
Wilson Corp., The, J. G., New York.

PATENT ATTORNEYS.
Buck, Sterling P., Washington, D. C.
Coleman, Watson E., Washington, D. C.
Eaton, Paul B., Charlotte, N. C.
Sasnett, Edward C., Washington, D. C.
Seymour & Bright, Washington, D. C.

PATTERNS (Drawing, etc.)
Hass Pattern Co., A. W., Atlanta, Ga.

PAVING (Asphaltic Concrete.)
Culbert & Sons, W. F., Marion, Va.

PAVING Blocks (Creosoted Wood.)
American Creosote Works, New Orleans.
Ayer & Lord Tie Co., Chicago, Ill.
Century Wood Preserving Co., Balto., Md.

PAVING Mixers.
National Equip. Corp., (Koehring, T. L. Smith), Milwaukee, Wis.

PENSTOCKS.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Chicago Bridge & Iron Wks., Birmingham.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Smith Co., S. Morgan, York, Pa.

PERFORATED METAL.
Chicago Perforating Co., Chicago, Ill.
Erdie Perforating Co., Rochester, N. Y.
Harrington & King Perf. Co., Chicago.
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
Mundt & Sons, Charles, Jersey City, N. J.

PETROLEUM REFINERS.
Gulf Refining Co., Pittsburgh, Pa.

PIG-IRON.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

PILES, POSTS, Poles (Creosoted.)
American Creosote Wks., New Orleans, La.
Atlantic Creosoting Co., Norfolk, Va.
Ayer & Lord Tie Co., Chicago, Ill.
Century Wood Preserving Co., Balto., Md.
National Lumber & Creosoting Co., Texarkana, Ark.-Tex.

PILING—(Steel Sheet.)
Carnegie Steel Co., Pittsburgh, Pa.

—(Yellow Pine.)
Century Wood Preserving Co., Balto., Md.

PIPE.
Albert & Davidson Pipe Corp., Brooklyn, N. Y.
Albert Pipe Sup. Co., Inc., Brooklyn, N. Y.
Birmingham Boiler & Engr. Co., Birmingham, Ala.
Central Pipe & Supply Co., Charleston, W. Va.
Greenpoint Iron & Pipe Co., Brooklyn, N. Y.
Hudson Pipe & Supply Co., Bayonne, N. J.
Maryland Pipe & Steel Corp., Baltimore, Md.
McDowell Pipe Corp., Brooklyn, N. Y.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Standard Piping & Fitting Co., Phila.
Wides Pipe & Supply Co., Cincinnati, O.

—(Cast Iron.)
Cast Iron Pipe Research Assn., Chicago.
Glasgow Pipe & Fdry. Co., Lynchburg, Va.
U. S. Pipe & Fdry. Co., Burlington, N. J.

—(Hammer-Welded.)
National Tube Co., Pittsburgh, Pa.
—(Iron and Steel, Spiral Welded.)
American Rolling Mill Co., Middletown, O.

—(Second-Hand.)
Albert & Davidson Pipe Corp., Brooklyn, N. Y.
Albert Pipe Sup. Co., Brooklyn, N. Y.
Central Pipe & Sup. Co., Charleston, W. Va.
Greenpoint Iron & Pipe Co., Brooklyn, N. Y.
Hudson Pipe & Supply Co., Bayonne, N. J.
Marine Metal & Supply Co., New York.
Maryland Pipe & Steel Corp., Baltimore, Md.
McDowell Pipe Corp., Brooklyn, N. Y.
Wides Pipe & Supply Co., Cincinnati, O.
—(Steel.)
Bethlehem Steel Co., Bethlehem, Pa.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Standard Piping & Fitting Co., Phila.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

—(Wrought Iron.)
Reading Iron Co., Reading, Pa.

PIPE (Fittings.)
Georgia Iron Works, Augusta, Ga.
Standard Piping & Fitting Co., Phila.

PIPE Machinery.
Quinn Wire & Iron Works, Boone, Iowa.
—Unions and Joints.
Dart Mfg. Co., E. M., Providence, R. I.
—Systems (Industrial.)
Moore Pipe & Sprinkler Co., Jacksonville, Fla.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Standard Piping & Fitting Co., Phila.

PLATES (Steel and Iron.)
American Rolling Mill Co., Middletown, O.
Bethlehem Steel Co., Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Central Iron & Steel Co., Harrisburg, Pa.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Gulf States Steel Co., Birmingham, Ala.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

POLES—(Tubular, Steel.)
Bessemer Galvanizing Works, Birmingham, Ala.
National Tube Co., Pittsburgh, Pa.

—(Yellow Pine.)
Century Wood Preserving Co., Balto., Md.

POLISHING MACHINERY.
(Wheels, Blocks.)
Carborundum Co., Niagara Falls, N. Y.

PORCH COLUMNS (Wood.)
Schwerdt Mfg. Co., A. F.

POSTS (Steel Fence.)
Atlantic Steel Co., Atlanta, Ga.

POWER TRANSMISSION MACHINERY.
Shofield's Sons Co., J. S., Macon, Ga.

PRESSES. (Baling, Cottonseed Oil, Hydraulic and Power.)
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.

PRINTERS (Book, Catalog, Job.)
Smith & Son Co., Oscar T., Baltimore, Md.
Young & Selden Co., Baltimore, Md.

PULLEYS (Friction Clutch.)
Caldwell Co., Inc., W. E., Louisville, Ky.

PULVERIZED COAL EQUIPMENT.
Fuller Lehigh Co., Fullerton, Pa.

PULVERIZERS. (See Crushing and Pulverizing Machinery.)

PUMPING MACHINERY.
Fairbanks, Morse & Co., Chicago, Ill.
La Bour Co., Elkhart, Ind.
Layne & Bowler, Inc., Memphis, Tenn.
Myers & Bro. Co., The F. E., Ashland, O.
Virginia Mch. & Well Co., Richmond, Va.

PUMPS (Boiler Feed.)
DeLaval Steam Turbine Co., Trenton, N. J.
Myers & Bro. Co., The F. E., Ashland, O.

—(Centrifugal.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
DeLaval Steam Turbine Co., Trenton, N. J.
Fairbanks, Morse & Co., Chicago, Ill.
LaBour Co., Elkhart, Ind.
Layne & Bowler, Inc., Memphis, Tenn.

—(Deep Well.)
Layne & Bowler, Inc., Memphis, Tenn.

—(Hydraulic.)
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.

—(Pulverized Coal.)
Fuller Lehigh Co., Fullerton, Pa.

—(Sand and Dredging.)
Georgia Iron Works, Augusta, Ga.

—(Steam.)
Fairbanks, Morse & Co., Chicago, Ill.

—(Water Works.)
Layne & Bowler, Inc., Memphis, Tenn.

PUNCHING AND SHEARING MACHINERY.
Bertsch & Co., Cambridge City, Ind.

RADIATOR ENCLOSURES.
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.

RAILINGS (Iron Pipe.)
Pipe Railing Constr. Co., Long Island City, N. Y.

RAILROAD Equipment and Supplies (New.)
Robinson & Orr, Pittsburgh, Pa.

—Equipment and Supplies (Used.)
Dyer Co., W. H., St. Louis, Mo.
Smith & Co., W. M., Birmingham, Ala.
Southern Iron and Equip. Co., Atlanta.

RAILROAD (Frogs and Switches)
Robinson & Orr, Pittsburgh, Pa.

RAILROADS — (Offering Industrial, Agricultural and Commercial Opportunities.)
Missouri Pacific R. R., St. Louis, Mo.
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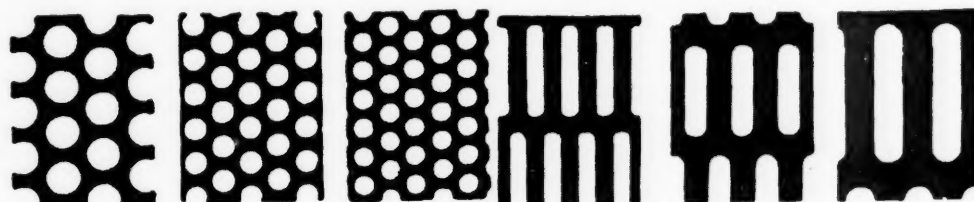
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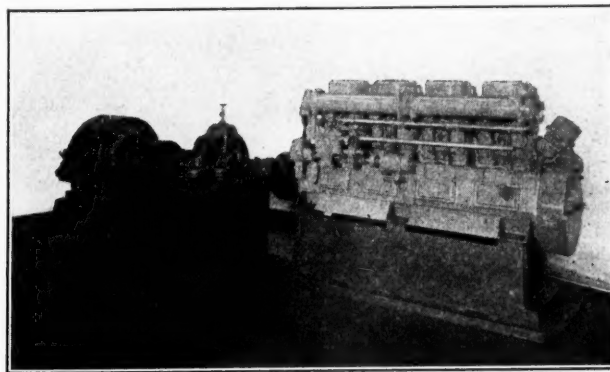
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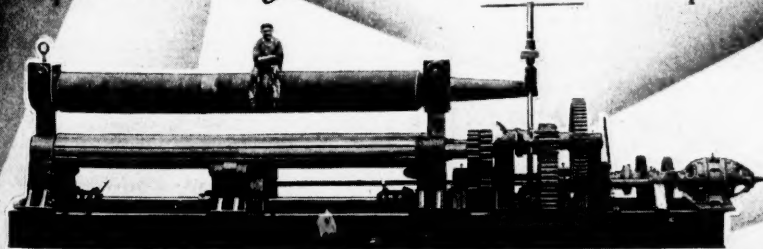
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